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WATER AND SEDIMENT CHEMISTRY CHARACTERISTICS OF THE TILBURY AND DEAS SLOUGH REGIONS OF THE FRASER RIVER

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ABSTRACT

Nassichuk, M.D., P.G. Futer, J.H. Patterson and I.K. Birtwell. Water and sediment chemistry characteristics of the Tilbury and Deas Slough regions of the Fraser River. Can. Data Rep. Fish. Aquat. Sci. 492.

The foreshore areas and associated fish habitats of the lower Fraser River and estuary are subject to continuing alteration from urban, commercial and industrial developments. Specific concern was recently expressed about the potential impact of proposed river training structures and wood debris and hogfuel disposal practices in shoreline areas on fishery resources. As a result, a study of water and sediment chemistry characteristics and fish populations was carried at locations in and adjacent to Tilbury and Deas Slough in 1976 and 1977. This report presents the water and sediment chemistry data obtained during the study.

RÉSUMÉ

Nassichuk, M.D., P.G. Futer, J.H. Patterson and I.K. Birtwell. Water and sediment chemistry characteristics of the Tilbury and Deas Slough regions of the Fraser River. Can. Data Rep. Fish. Aquat. Sci. 492.

Les habitats du poisson et des zones connexes de l'estran de la partie inférieure et de l'estuaire du fleuve Fraser sont l'objet de modifications permanentes entraînées par des développements urbains, commerciaux et industriels. Récemment, on a porté une attention particulière à l'incidence potentielle, sur les ressources halieutiques, de projets d'endiguement fluvial et des pratiques de rejet de déchets de bois combustibles dans les régions littorales. En 1976 et 1977, on a réalisé à cette fin une étude des caractéristiques chimiques de l'eau et des sédiments et un examen des populations de poissons à des stations situées à l'intérieur et près des marécages Tilbury et Déas. Le présent rapport porte sur les données recueillies sur la chimie de l'eau et des sédiments au cours de l'étude.

INTRODUCTION

The Fraser River supports substantial populations of numerous fish species. Pacific salmon (Onchorhynchus spp.) as well as over thirty other fish species utilize the lower reaches of the river and its estuary for various portions of their life cycles (Northcote, 1974). Recent studies have demonstrated the particular importance of slough and side-channel habitats of the Fraser estuary to juvenile Pacific salmon, most notably chinook and chum (Dunford, 1975; Levy et al., 1979; Levy and Northcote, 1981; Levy and Northcote, 1982; and Levy et al., 1982).

Land adjoining the river and estuary is used for many purposes, including industrial operations, transportation networks and urban development. Continuing pressure on estuarine and foreshore areas from such land use activity poses significant threats to aquatic habitat important to fishery resources. Alienation of shoreline and side-channel habitat has already occurred in numerous locations as a result of activities such as sawmilling. Large volumes of wood debris and hogfuel from some sawmills situated adjacent to the Fraser River have typically been deposited in foreshore locations along the lower Fraser and, in some areas, has led to the loss of fish habitat and the generation of toxic leachates.

The lower Fraser River, up to New Westminster, is heavily used by sea-going vessels which require the maintenance of a deep river channel. Transport Canada, the federal department responsible for the maintenance of the channel[1], undertakes large-scale

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1 Channel maintenance was formerly the responsibility of the Federal Department of Public Works.

dredging operations in order to accomodate these vessels. In 1977, the federal government proposed to upgrade the lower Fraser River navigational channel by increasing the 'self-scouring' action of the river, thereby reducing annual dredging requirements. The proposal involved the placement of training structures constructed of rock and gravel or creosoted pilings and the installation of groynes to alter flow regimes and sedimentation patterns (Envirocon, 1976).

Concerns about the impacts of sawmill wastes deposited in foreshore areas near Tilbury Slough and the potential effects of the river training project on fish population characteristics of Tilbury and Deas Sloughs resulted in a study by the Department of Fisheries and Oceans. An examination of water and sediment chemistry and fish populations at sites along Gravesend Reach and in Tilbury and Deas Sloughs was started in 1976. The objective of this portion of the study was to measure water and sediment chemistry characteristics of slough and riverine habitats. This information was to be used in assessing the effects of wood waste deposits and the proposed training works on water quality and fish production in the study area.

This report presents the results of the water and sediment chemistry sampling program which was carried out in 1976 and 1977. Results pertaining to other aspects of the study are reported elsewhere (Nassichuk et al. in prep.).

STUDY AREA

TILBURY SLOUGH

This portion of the study area is on the south side of the main arm of the lower Fraser River (Figure 1). The shoreline areas that were examined extend from the mouth of Tilbury Slough to a site located 4 km upstream, approximately 200 m beyond the eastern end of Tilbury Island. The shoreline along Tilbury Island is comprised of a mixture of riverine marsh, riparian shrub and deciduous forest, which has been altered in some areas by industrial development.

Tilbury Slough joins the Fraser River at the western end of Tilbury Island; a remnant section joins the river at the eastern end of the island (Figure 1). The major section of the slough is comprised of a narrow 7 to 16 m wide channel, 500 m in length, that branches into eastern and southern forks. The channel is surrounded by marsh and riparian shrub and deciduous habitat (Government of Canada et al. 1977). Tilbury Slough is flushed by tidal action; the higher tides inundate the surrounding riparian habitat. During low tides, upper portions of the slough are completely drained. During the study, drainage water from adjacent agricultural lands entered each fork of Tilbury Slough by two pumphouses. The pumphouse on the south fork has since been removed as part of the Fraser River flood control program.

DEAS SLOUGH

Deas Slough is located on the south side of the main arm of the lower Fraser River, seaward of the Tilbury Slough study area (Figure 1). The Slough is a blind channel that joins the Fraser

River at the western end of Deas Island. Deas Slough is 200 to 300 m wide and approximately 2.7 km long: it has a maximum depth of approximately 12 m. Several marinas are situated along its southern shore, and log booms were stored adjacent to its northern shore during the course of the study.

SAMPLING LOCATIONS

Twelve stations were routinely sampled during the course of the study (Figure 1). Stations 1, 4 and 6 within the Tilbury Slough study area were characterized by riverine marsh at the higher tidal levels and sandy beaches at lower tidal levels. Stations 2 and 5 were situated near sawmills and adjacent to large foreshore deposits of woodwaste in the Tilbury Slough study area. Stations 10 and 11 were situated within Tilbury Slough, 100 and 400 m from its mouth respectively. Station 3 was located at the mouth of the remnant section of Tilbury Slough which joins the Fraser River at the eastern end of Tilbury Island. Station 12 was situated in a drainage ditch which carried drainage water from agricultural lands into the south fork of Tilbury Slough (Figure 1).

In the Deas Slough study area, station 13 was located at the junction of Deas Slough and Ladner reach. Station 14 was located mid-way between the Deas Slough bridge and station 15 which was situated approximately 2.6 km from the mouth of Deas Slough (Figure 1).

MATERIALS AND METHODS

WATER CHEMISTRY SAMPLES

Samples were collected every two weeks from 12 April to 5 October, 1976, then monthly until 1 March, 1977, and thereafter every two weeks until 17 August, 1977.

Two samples were taken at each station, one immediately below the water surface and a second immediately above the river or slough bottom. Water depths varied between stations (eg. from 0.5 m at station 11 to 12 m at station 14). Surface samples were collected in hand-held sampling bottles. Samples of bottom waters were collected with a six litre polyvinyl chloride (PVC) Van Dorn sampler. Water temperature was measured with a hand-held thermometer.

Water samples to be analyzed for chemical oxygen demand, dissolved oxygen and sulphide concentration were chemically fixed in the field, according to specifications given in Government of Canada (1976).

Samples to be analyzed for ammonia, biochemical oxygen demand, chloride, colour, nitrate, nitrite, non-filterable residue, pH, salinity, sulphate, total organic carbon, total phosphorus and turbidity were retained in bottles and transported on ice to the Department of Fisheries and Oceans/Department of the Environment (DFO/DOE) Chemistry Laboratory in West Vancouver for analysis. Sample preparation was in accordance with instructions provided in the Government of Canada (1976) laboratory manual. Colour was analyzed using the platinum-cobalt comparison methods; dissolved oxygen was analyzed using the Winkler azide titration method.

Dissolved oxygen data are expressed as concentrations (mg l^{-1}) and as % air saturation. The latter was calculated according to the following formula:

$$\% \text{ air saturation} = \frac{100 \times DOT}{C_s}$$

where DOT = true dissolved oxygen
= (1 - bc) x meter readout for dissolved oxygen concentration

where b = a constant dependent on temperature (derived from data presented in Green and Carritt, 1967)

and c = conductivity (mmhos cm^{-1})

Conductivity (c) values were derived from salinity (s) values according to the relationship $c(\text{mmhos cm}^{-1}) = \frac{22 \times s(ppt)}{13}$

(appropriate for conductivity values <22 mmhos cm^{-1})

and C_s = solubility coefficient

$$= \frac{475 - 2.65 \times s}{33.5 \times T}$$

(for temperatures in the range 0-30°C)

where s = salinity (0/00)
and T = temperature (°C)
(Gameson and Robertson, 1955)

Salinity was measured in the laboratory with a temperature compensated Goldberg refractometer.

SEDIMENT CHEMISTRY SAMPLES

Sediments were collected from a boat using either a weighted or unweighted Ekman dredge, 15 cm (width) x 15 cm (length) x 25 cm (height), which sampled an area of 225 cm^2, or a Kejac-Brinkhurst (KB) core sampler which sampled an area of 64.9 cm^2. During

1976, benthic samples were collected on several occasions at six stations in the Tilbury study area using one of two instruments. The KB core sampler was used to sample at sites 1, 2, 4, 5, 10 and 11 on 12 April, at sites 2, 5, 10 and 11 on 25 May and at sites 5, 10 and 11 on 22 July. The weighted Ekman dredge was used to sample at sites 4, 5 and 10 on 9 July, at site 2 on 21 September and at sites 4, 5 and 10 on 5 October. The Ekman dredge was found to be the most suitable instrument for sampling the types of sediment encountered in the study area. As the study progressed, it was determined that the use of a weight on the dredge was not required in order to achieve sampling success.

In 1977, sediments were sampled using a unweighted Ekman dredge at five stations in the Tilbury study area (1, 2, 6, 10 and 11) once a month from 28 March to 16 August. Sampling was discontinued at sites 4 and 5 in 1977 as the sediments found at sites 1 and 2 were deemed to be representative of those also found at stations 4 and 5. Sampling was initiated at site 6 in 1977 in order to obtain samples representative of a riverine station.

Sediment samples were not collected in the Deas study area in 1976. In 1977, sites 13, 14 and 15 in the Deas study area were sampled on June 24 using an unweighted Ekman dredge.

Sediment samples were placed in polyethylene containers and transported on ice to the DFO/DOE Chemistry Laboratory in West Vancouver where they were frozen prior to analysis.

Samples to be analyzed for the cadmium, chromium, copper, iron , lead, mercury, nickel and zinc were freeze-dried and then sieved using a 100 mesh stainless steel sieve before treatment. Except for mercury determination, a portion of the sieved sample was then leached with aqua regia (HCl and HNO_3) and heated prior to analysis. A portion of the sieved sample was digested with

nitric acid, sulphuric acid and a small amount of hydrochloric acid prior to analysis for mercury.

Samples to be used for determination of total volatile residue were dried at 105°C and sieved using a 100 mesh stainless steel sieve in preparation for analysis. Samples to be analyzed for total phosphate concentration were first dried and then dissolved in deionized water.

Levels of cadmium, chromium, copper, iron, lead, mercury, nickel and zinc in sediment samples were determined using atomic absorption spectrophotometry (AAS); mercury was analyzed using the cold vapour AAS technique (Government of Canada, 1976).

Total volatile residue was determined following ignition of the prepared sample at 550°C (Government of Canada, 1976). Total phosphate in prepared samples was determined according to the methods described for water samples in Government of Canada (1976).

QUALITY CONTROL OF LABORATORY ANALYSES

In order to ensure reliability of laboratory results, routine quality control checks were undertaken. Analytical instruments were calibrated using calibration standards; analytical blanks were prepared and analyzed at least in duplicate as a contamination check; samples were analyzed in batches containing duplicates and reference or control samples to check for contamination and reproducibility and precision of results. Once analyzed samples were subjected to further quality control checks such as cation/anion balances, diluted conductivity and informal historical or pattern recognition checks. In order to ensure

long-term reliability of analytical results, working calibration standards were referenced to primary materials where possible.

DETECTION LIMITS

Detection limits for the analyses undertaken are reported in Tables 1A and 1B. It should be noted that values which are below detection limits are denoted in the tables by '<' preceding a value which is the detection limit. Where the value following the 'less than' sign does not correspond to the detection limit appearing in Tables 1A and 1B it is because it was necessary to dilute the sample prior to analysis or to analyse a smaller volume of sample than usual. In either case, a higher detection limit than that appearing in Table 1A or 1B would result.

RESULTS

WATER CHEMISTRY

Water chemistry data are presented in Tables 2-18 and summarized in Tables 29 and 30.

Table 29 shows that maximum values of many parameters measured in samples from surface waters were at station 3: biochemical oxygen demand (18 $mg \cdot l^{-1}$), chemical oxygen demand (5,800 $mg \cdot l^{-1}$), colour (1,100 APHA units), non-filterable residue (1,500 $mg \cdot l^{-1}$), total organic carbon (1,300 $mg \cdot l^{-1}$), total phosphorus (0.9 $mg \cdot l^{-1}$) and turbidity (3,200 FTU). The minimum recorded pH value (4.6) was also found in a surface water sample collected at station 3. Station 3 was located at the mouth of the remnant section of Tilbury Slough which joins the Fraser River at the eastern end of Tilbury Island.

The highest mean values of ammonia, chloride, colour, nitrate, sulphate, temperature, total organic carbon, total phosphate and turbidity were found in both surface and bottom water samples at slough sites rather than at Fraser River sites.

Both salinity and sulphide concentration were rarely above detection limits in water samples collected.

The lowest mean concentration of dissolved oxygen was recorded at station 12, in a drainage ditch receiving agricultural runoff ($\bar{x} \pm SD$: 4.6 ± 1.8 $mg \cdot l^{-1}$; 45.8 ± 20 % air saturation). Dissolved oxygen levels were also frequently depressed at station 3 in the remnant section of Tilbury Slough (minimum value: <1.0 $mg \cdot l^{-1}$), station 11 in Tilbury Slough (minimum value: 3.4 $mg \cdot l^{-1}$ and <1.0 $mg \cdot l^{-1}$ in surface and bottom water samples

respectively) and in bottom water samples from station 14 in Deas Slough (minimum value: <1.0 $mg \cdot l^{-1}$).

SEDIMENT CHEMISTRY

Sediment chemistry data are listed in Tables 19-28 and summarized in Table 31.

For stations in the Tilbury study area, highest concentrations of chromium (49 $mg \cdot kg^{-1}$), copper (55 $mg \cdot kg^{-1}$), iron (45,000 $mg \cdot kg^{-1}$), lead (20 $mg \cdot kg^{-1}$), nickel (81 $mg \cdot kg^{-1}$), total phosphorus (940 $mg \cdot kg^{-1}$), total volatile residue (130 $mg \cdot kg^{-1}$) and zinc (97 $mg \cdot kg^{-1}$) were found in Tilbury Slough (station 10).

Cadmium was not present in detectable concentrations in any of the sediment samples collected. The maximum recorded value for mercury (0.5 $mg \cdot kg^{-1}$) was found in a sample from station 6 on Gravesend Reach. The highest zinc concentration (100 $mg \cdot kg^{-1}$) recorded during the study was in a sediment sample from station 14 in Deas Slough.

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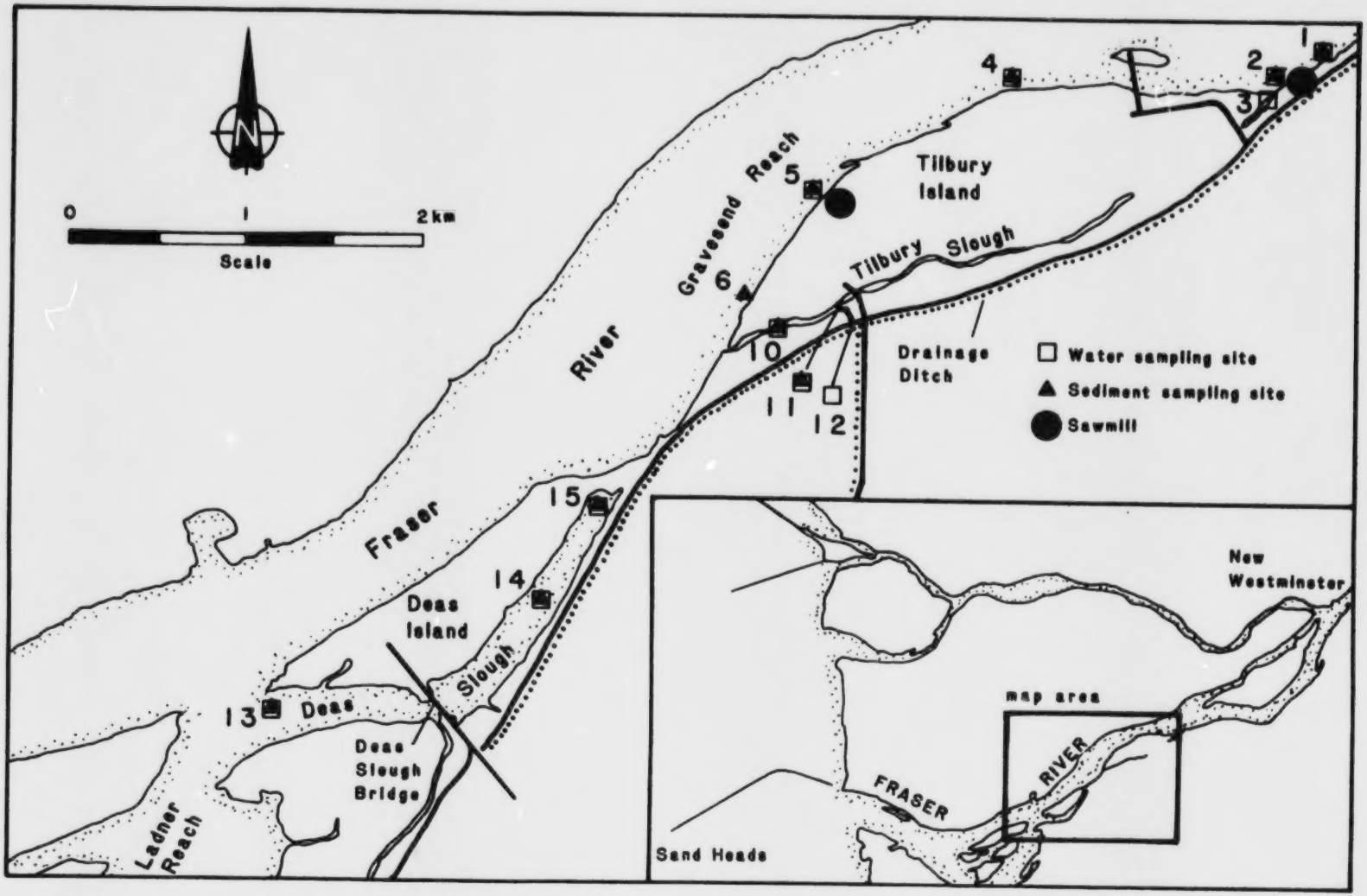

FIGURE 1. Location of sampling stations in the Tilbury and Deas study areas.

Table 1A Detection Limits for Water Chemistry Parameters[1] - 1976/1977

Parameter	Detection Limit
Ammonia - as N	0.005 $mg.l^{-1}$
Biochemical Oxygen Demand	2 $mg.l^{-1}$
Chemical Oxygen Demand	20 $mg.l^{-1}$
Chloride	0.5 $mg.l^{-1}$
Colour	5 APHA Units
Dissolved Oxygen	1.0 $mg.l^{-1}$
Nitrate - as N	0.01 $mg.l^{-1}$
Nitrate - as N	0.005 $mg.l^{-1}$
Non-filterable Residue	5 $mg.l^{-1}$
pH	--
Salinity	1 ppt
Sulphate	1.0 $mg.l^{-1}$
Sulphide	0.05 $mg.l^{-1}$
Temperature	0.5 °C
Total Organic Carbon	1 $mg.l^{-1}$
Total Phosphorus	0.005 $mg.l^{-1}$
Turbidity	0.5 $mg.l^{-1}$

[1] In Tables 2-28 values below detection limits are denoted by a < sign preceding a value which is the detection limit. Where the value following the < sign does not correspond to the detection limit appearing in Table 1A or 1B it is because it was necessary to dilute the sample prior to analysis or to analyze a smaller volume of sample than usual. In either case, a higher detection limit than that appearing in Table 1A or 1B results.

Table 10 Detection Limits for Sediment Chemistry Parameters - 1976/1977

Parameter	Detection Limit
Cadmium	1 $\mu g.kg^{-1}$
Chromium	2 $\mu g.kg^{-1}$
Copper	1 $\mu g.kg^{-1}$
Iron	5 $\mu g.kg^{-1}$
Lead	12 $\mu g.kg^{-1}$
Mercury	0.02 $\mu g.kg^{-1}$
Nickel	5 $\mu g.kg^{-1}$
Total Phosphorus	0.25 $\mu g.kg^{-1}$
Total Volatile Residue	2 $\mu g.g^{-1}$
Zinc	1 $\mu g.kg^{-1}$

Table 2A Ammonia (as N) Concentration in Samples from Surface and Bottom Waters ($\mu g \cdot l^{-1}$) - 1976

Date	Sampling Depth	Station 1	2	3	4	5	10	11	12	13	14	15
12 Apr	Surface	0.019	0.032	0.22	0.044	0.031	0.032	0.17	---	---	---	---
	Bottom	0.026	0.019	---	0.031	0.035	0.039	0.093	---	---	---	---
27 Apr	Surface	0.017	0.023	0.63	0.072	0.030	0.045	0.45	---	---	---	---
	Bottom	0.020	0.024	---	0.033	0.035	0.033	0.48	---	---	---	---
25 May	Surface	0.050	0.051	0.29	0.086	0.091	0.088	0.31	---	---	---	---
	Bottom	0.049	0.050	---	0.082	0.088	0.13	---	---	---	---	---
07 Jun	Surface	0.007	0.005	0.31	0.012	0.011	0.099	0.22	---	---	---	---
	Bottom	0.021	0.007	---	0.007	0.018	0.041	---	---	---	---	---
23 Jun	Surface	0.022	0.019	0.18	0.016	0.018	0.026	0.16	---	---	---	---
	Bottom	0.021	0.024	---	0.018	0.017	0.039	0.18	---	---	---	---
09 Jul	Surface	0.016	0.019	0.10	0.015	0.015	0.064	0.25	---	---	---	---
	Bottom	0.018	0.016	---	0.012	0.015	0.063	0.46	---	---	---	---
22 Jul	Surface	0.008	0.009	0.85	0.011	0.008	0.050	0.22	---	---	---	---
	Bottom	0.007	0.009	---	0.011	0.011	0.040	0.074	---	---	---	---
05 Aug	Surface	<0.005	0.006	0.42	0.005	0.006	<0.005	0.087	0.13	0.008	3.3	0.036
	Bottom	0.009	0.006	---	0.009	0.011	0.007	0.098	---	0.005	0.014	0.025
19 Aug	Surface	0.014	0.015	0.14	0.013	0.016	0.017	0.26	0.27	1.4	0.37	0.13
	Bottom	0.014	0.015	---	0.016	0.010	0.020	0.15	---	0.21	5.0	0.16
02 Sep	Surface	0.009	0.011	0.25	0.016	0.016	0.021	0.24	0.25	0.28	0.10	0.012
	Bottom	0.012	0.013	---	0.015	0.012	0.018	0.24	---	0.19	0.15	0.049
21 Sep	Surface	0.013	0.015	0.34	0.010	0.009	0.028	0.15	0.20	0.15	0.21	0.061
	Bottom	0.010	0.007	---	0.009	0.008	0.026	0.090	---	0.25	0.080	0.21
05 Oct	Surface	<0.005	<0.005	0.13	0.007	0.008	0.018	0.050	0.59	0.22	0.24	0.086
	Bottom	0.007	0.007	---	0.007	0.011	0.031	0.34	---	0.070	0.084	0.10
03 Nov	Surface	0.011	0.022	0.12	0.021	0.018	0.027	0.044	0.026	0.83	0.45	0.18
	Bottom	0.008	0.017	---	0.022	0.015	0.080	0.64	---	0.28	0.40	0.18
08 Dec	Surface	0.017	0.019	0.018	0.017	0.027	0.31	0.13	0.31	---	---	---
	Bottom	---	---	---	---	---	0.43	0.13	---	---	---	---

--- No sample available for analysis

Table 2B Ammonia (as N) Concentration in Samples from Surface and Bottom Waters ($mg \cdot l^{-1}$)- 1977

Date	Sampling Depth	Station										
		1	2	3	4	5	10	11	12	13	14	15
12 Jan	Surface	0.032	0.034	0.064	0.026	0.041	0.039	0.15	0.33	0.066	0.11	---
	Bottom	0.048	0.042	---	0.037	0.041	0.040	0.41	---	0.059	0.31	---
07 Feb	Surface	0.030	0.036	0.25	0.048	0.053	0.061	0.11	0.23	0.059	0.10	0.20
	Bottom	0.035	0.040	---	0.038	0.054	0.066	0.15	---	0.14	0.25	0.27
01 Mar	Surface	0.023	0.028	0.060	0.040	0.067	0.30	0.38	0.48	0.28	0.29	0.42
	Bottom	0.023	0.022	---	0.042	0.071	2.8	0.37	---	0.14	0.27	0.41
15 Mar	Surface	0.025	0.024	0.20	0.024	0.028	0.028	0.35	0.15	0.025	0.27	0.29
	Bottom	0.025	0.024	---	0.026	0.029	0.040	0.35	---	0.15	0.45	0.27
30 Mar	Surface	0.015	0.018	0.56	0.021	0.028	0.12	0.72	0.48	0.25	0.43	0.36
	Bottom	0.022	0.016	---	0.019	0.026	0.13	0.58	---	0.33	0.92	0.45
12 Apr	Surface	0.044	0.042	0.35	0.039	0.036	0.042	0.22	0.22	0.24	0.28	0.16
	Bottom	0.041	0.045	---	0.037	0.038	0.037	0.24	---	0.27	1.1	0.22
25 Apr	Surface	0.021	0.025	0.24	0.022	0.028	0.070	0.052	0.30	0.23	0.26	0.13
	Bottom	0.017	0.026	---	0.018	0.029	0.060	0.048	---	0.55	1.1	0.30
10 May	Surface	0.024	0.030	0.046	0.018	0.031	0.047	0.074	0.27	0.11	0.13	0.12
	Bottom	0.021	0.028	---	0.018	0.021	0.047	0.072	---	0.073	0.11	0.21
26 May	Surface	0.020	0.020	0.060	0.025	0.027	0.030	0.075	0.37	0.19	0.080	0.050
	Bottom	0.016	0.017	---	0.017	0.024	0.035	0.19	---	0.21	0.13	0.13
08 Jun	Surface	0.025	0.019	0.021	0.019	0.024	0.020	0.033	0.14	0.14	0.063	0.015
	Bottom	0.018	0.022	---	0.018	0.022	0.014	0.040	---	0.18	0.090	0.017
23 Jun	Surface	0.008	0.042	0.010	0.012	0.010	0.013	0.11	0.034	0.017	0.025	0.033
	Bottom	0.010	0.012	---	0.010	0.013	0.021	0.084	---	0.019	0.066	0.13
07 Jul	Surface	0.012	0.018	0.035	0.016	0.035	0.030	0.15	0.18	0.043	0.018	0.007
	Bottom	0.017	0.020	---	0.016	0.020	0.038	0.16	---	0.10	0.062	0.040
21 Jul	Surface	0.012	0.017	0.018	0.014	0.018	0.022	0.088	0.15	0.022	0.050	0.093
	Bottom	0.020	0.019	---	0.020	0.015	0.011	0.098	---	0.017	0.079	0.079
02 Aug	Surface	0.006	0.005	0.033	0.010	0.010	0.019	0.037	0.091	0.028	0.034	0.039
	Bottom	0.009	0.008	---	<0.005	<0.005	0.022	0.025	---	0.009	0.023	0.066
17 Aug	Surface	0.012	0.010	0.022	0.010	0.012	0.011	0.041	0.068	0.061	0.020	0.007
	Bottom	0.014	0.014	---	0.008	0.010	0.013	0.023	---	0.058	0.068	0.088

--- No sample available for analysis

Table 3A Biochemical Oxygen Demand in Samples from Surface and Bottom Waters ($mg \cdot l^{-1}$) - 1976

Date	Sampling Depth	Station										
		1	2	3	4	5	10	11	12	13	14	15
12 Apr	Surface	<10	<10	<10	<10	<10	<10	<10	---	---	---	---
	Bottom	<10	<10	---	<10	<10	<10	<10	---	---	---	---
27 Apr	Surface	< 5	< 5	9	< 5	< 5	< 5	< 5	---	---	---	---
	Bottom	< 5	< 5	---	< 5	< 5	< 5	< 5	---	---	---	---
25 May	Surface	< 2	< 2	11	2	< 2	< 2	3	---	---	---	---
	Bottom	< 2	< 2	---	< 2	< 2	4	---	---	---	---	---
07 Jun	Surface	< 3	< 3	5	< 3	< 3	< 3	3	---	---	---	---
	Bottom	< 3	< 3	---	< 3	< 3	< 3	---	---	---	---	---
23 Jun	Surface	< 2	< 2	6	< 2	< 2	< 2	5	---	---	---	---
	Bottom	< 2	< 2	---	< 2	< 2	< 2	6	---	---	---	---
09 Jul	Surface	< 3	< 3	7	< 3	< 3	< 3	< 3	---	---	---	---
	Bottom	< 3	< 3	---	< 3	< 3	< 3	16	---	---	---	---
22 Jul	Surface	< 6	< 6	<16	< 6	< 6	< 6	< 6	---	---	---	---
	Bottom	< 6	< 6	---	< 6	< 6	< 6	23	---	---	---	---
05 Aug	Surface	< 5	< 5	18	< 5	< 5	< 5	< 5	< 5	< 5	13	< 5
	Bottom	< 5	< 5	---	< 5	< 5	< 5	< 5	---	< 5	< 5	< 5
19 Aug	Surface	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	3	2	< 2
	Bottom	< 2	< 2	---	3	< 2	< 2	< 2	---	< 2	< 2	< 2
02 Sep	Surface	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	Bottom	< 5	< 5	---	< 5	< 5	< 5	< 5	---	< 5	< 5	< 5
21 Sep	Surface	< 2	< 2	8	< 2	< 2	< 2	2	5	< 2	< 2	3
	Bottom	< 2	< 2	---	< 2	< 2	< 2	2	---	< 2	3	3
05 Oct	Surface	< 2	< 2	4	< 2	< 2	< 2	< 2	3	< 2	< 2	< 2
	Bottom	< 2	< 2	---	< 2	< 2	< 2	< 2	---	< 2	< 2	< 2
03 Nov	Surface	< 2	< 2	< 2	< 2	---	---	3	---	---	---	---
	Bottom	< 2	< 2	---	6	---	< 2	3	---	---	---	---
08 Dec	Surface	< 2	< 2	2	< 2	< 2	2	2	3	---	< 2	---
	Bottom	---	---	---	---	---	3	3	---	---	< 2	---

--- No sample available for analysis

Table 3B Biochemical Oxygen Demand in Samples from Surface and Bottom Waters ($mg \cdot l^{-1}$) - 1977

Date	Sampling Depth	Station										
		1	2	3	4	5	10	11	12	13	14	15
12 Jan	Surface	2	2	3	< 2	< 2	< 2	<2	5	< 2	< 2	---
	Bottom	2	< 2	---	< 2	< 2	< 2	4	---	< 2	< 2	---
07 Feb	Surface	< 2	< 2	< 2	< 2	< 2	2	< 2	4	< 2	< 2	< 2
	Bottom	< 2	< 2	---	6	< 2	< 2	2	---	< 2	< 2	3
01 Mar	Surface	< 2	< 2	< 2	< 2	< 2	2	3	4	< 2	< 2	< 2
	Bottom	< 2	< 2	---	< 2	< 2	3	3	---	< 2	< 2	3
15 Mar	Surface	< 2	< 2	6	< 2	< 2	< 2	6	> 6	< 2	< 2	< 2
	Bottom	< 2	< 2	---	< 2	< 2	< 2	5	---	< 2	< 2	2
30 Mar	Surface	< 2	< 2	7	< 2	< 2	< 2	4	5	< 2	< 2	< 2
	Bottom	< 2	2	---	< 2	< 2	< 2	3	---	< 2	< 2	3
12 Apr	Surface	< 2	< 2	8	< 2	< 2	< 2	3	3	< 2	< 2	< 2
	Bottom	< 2	< 2	---	< 2	< 2	2	3	---	2	< 2	< 2
25 Apr	Surface	< 2	< 2	7	< 2	< 2	< 2	< 2	7	2	2	3
	Bottom	< 2	2	---	< 2	< 2	< 2	< 2	---	4	< 2	2
10 May	Surface	2	2	3	3	3	2	2	6	3	3	3
	Bottom	2	2	---	3	2	3	3	---	3	3	2
26 May	Surface	< 2	2	< 2	< 2	< 2	< 2	< 2	5	6	< 2	5
	Bottom	< 2	< 2	---	< 2	< 2	< 2	< 2	---	3	< 2	< 2
08 Jun	Surface	< 2	< 2	< 2	< 2	< 2	< 2	< 2	3	< 2	3	4
	Bottom	< 2	< 2	---	< 2	< 2	< 2	2	---	< 2	< 2	6
23 Jun	Surface	< 2	< 2	< 2	< 2	< 2	< 2	3	< 2	< 2	2	2
	Bottom	< 2	< 2	---	< 2	< 2	< 2	3	---	< 2	< 2	< 2
07 Jul	Surface	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	2
	Bottom	< 2	< 2	---	< 2	< 2	< 2	< 2	---	< 2	< 2	6
21 Jul	Surface	< 2	< 2	< 2	< 2	< 2	< 2	< 2	3	< 2	2	< 2
	Bottom	< 2	< 2	---	< 2	< 2	< 2	< 2	---	< 2	3	< 2
02 Aug	Surface	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
	Bottom	< 2	< 2	---	< 2	< 2	< 2	< 2	---	< 2	< 2	< 2
17 Aug	Surface	< 2	< 2	< 2	< 2	< 2	< 2	< 2	3	< 2	< 2	< 2
	Bottom	< 2	< 2	---	< 2	< 2	< 2	< 2	---	< 2	< 2	2

--- No sample available for analysis

Table 4A Chemical Oxygen Demand in Samples from Surface and Bottom Waters ($mg \cdot l^{-1}$) - 1976

Date	Sampling Depth	Station										
		1	2	3	4	5	10	11	12	13	14	15
12 Apr	Surface	<20	37	120	<20	<20	<20	82	---	---	---	---
	Bottom	<20	<20	---	<20	<20	<20	26	---	---	---	---
27 Apr	Surface	25	<20	900	22	<20	33	83	---	---	---	---
	Bottom	22	33	---	22	22	260	72	---	---	---	---
25 May	Surface	<20	24	2200	20	45	37	65	---	---	---	---
	Bottom	24	20	---	24	24	57	---	---	---	---	---
07 Jun	Surface	<55	27	280	<20	27	55	150	---	---	---	---
	Bottom	51	82	---	27	24	110	---	---	---	---	---
23 Jun	Surface	<20	68	390	40	40	20	150	---	---	---	---
	Bottom	36	28	---	60	40	24	160	---	---	---	---
09 Jul	Surface	<20	<20	440	<20	<20	31	38	---	---	---	---
	Bottom	<20	<20	---	<20	<20	65	1400	---	---	---	---
22 Jul	Surface	<20	<20	5800	<20	<20	23	70	---	---	---	---
	Bottom	<20	<20	---	<20	<20	54	330	---	---	---	---
05 Aug	Surface	26	<20	450	<20	<20	23	23	28	<20	---	<20
	Bottom	<20	<20	---	<20	<20	<20	930	---	<20	<20	23
19 Aug	Surface	71	83	290	<20	<20	100	40	63	87	<20	<20
	Bottom	40	40	---	48	40	<20	83	---	80	150	<20
02 Sep	Surface	<20	<20	90	<20	<20	40	55	67	28	40	40
	Bottom	<20	<20	---	<20	<20	63	100	---	48	300	51
21 Sep	Surface	<20	<20	400	<20	<20	83	79	<20	130	<20	24
	Bottom	<20	<20	---	<20	<20	95	28	---	<20	<20	<20
05 Oct	Surface	<20	<20	400	<20	<20	<20	<20	<20	20	<20	<20
	Bottom	<20	<20	---	<20	<20	<20	24	---	110	<20	<20
03 Nov	Surface	<20	<20	350	26	<20	23	120	230	83	<20	57
	Bottom	38	<20	---	41	<20	57	260	---	64	60	75
08 Dec	Surface	<20	35	56	45	70	120	55	100	---	65	---
	Bottom	---	---	---	---	---	130	65	---	---	140	---

--- No sample available for analysis

Table 4B Chemical Oxygen Demand in Samples from Surface and Bottom Waters ($mg \cdot l^{-1}$) - 1977

Date	Sampling Depth	Station										
		1	2	3	4	5	10	11	12	13	14	15
12 Jan	Surface	42	31	26	<20	150	42	20	94	73	26	---
	Bottom	53	52	---	100	<20	36	26	---	83	180	---
07 Feb	Surface	<20	35	1200	53	66	31	22	48	40	40	66
	Bottom	<20	44	---	26	84	31	26	---	300	240	62
01 Mar	Surface	20	20	65	20	70	75	90	180	25	60	50
	Bottom	30	25	---	50	75	140	150	---	50	340	130
15 Mar	Surface	<20	<20	400	<20	25	25	80	85	20	<20	25
	Bottom	<20	<20	---	<20	<20	30	75	---	80	300	40
30 Mar	Surface	<20	20	640	25	45	75	90	95	60	60	<20
	Bottom	60	50	---	<20	60	140	65	---	65	330	60
12 Apr	Surface	24	24	370	48	24	24	100	130	100	24	53
	Bottom	<20	29	---	38	24	38	100	---	34	250	24
25 Apr	Surface	<20	<20	450	<20	<20	34	38	190	29	34	38
	Bottom	<20	38	---	<20	<20	24	43	---	53	170	<20
10 May	Surface	<20	<20	<20	<20	<20	<20	29	140	<20	<20	<20
	Bottom	<20	<20	---	34	<20	72	29	---	<20	<20	<20
26 May	Surface	180	20	55	<20	<20	30	180	430	170	<20	120
	Bottom	<20	100	---	35	<20	30	40	---	<20	190	35
08 Jun	Surface	20	35	20	<20	20	210	85	60	30	30	20
	Bottom	<20	<20	---	20	20	130	55	---	30	20	20
23 Jun	Surface	<20	32	37	37	47	<20	47	47	47	170	53
	Bottom	<20	<20	---	32	37	47	<20	---	<20	47	32
07 Jul	Surface	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
	Bottom	<20	<20	---	<20	<20	<20	<20	---	<20	<20	<20
21 Jul	Surface	20	20	25	20	25	<20	40	40	20	25	20
	Bottom	25	<20	---	<20	<20	<20	40	---	50	120	30
02 Aug	Surface	24	<20	34	29	<20	<20	24	34	<20	<20	34
	Bottom	<20	<20	---	<20	<20	24	24	---	<20	<20	24
17 Aug	Surface	<20	<20	26	31	<20	<20	<20	40	20	26	<20
	Bottom	<20	<20	---	20	26	20	31	---	<20	26	20

--- No sample available for analysis

Table 5A Chloride Concentration in Samples from Surface and Bottom Waters (eq·l^{-1}) - 1976

Date	Sampling Depth	Station										
		1	2	3	4	5	10	11	12	13	14	15
12 Apr	Surface	3.2	2.9	7.0	4.4	5.7	8.6	38	---	---	---	---
	Bottom	4.7	2.7	---	3.4	7.0	8.8	21	---	---	---	---
27 Apr	Surface	2.2	2.2	20	2.7	2.9	10	210	---	---	---	---
	Bottom	2.1	2.5	---	2.4	2.8	10	210	---	---	---	---
25 May	Surface	1.5	1.6	14	1.8	1.6	2.0	37	---	---	---	---
	Bottom	2.1	1.6	---	1.8	1.8	2.0	---	---	---	---	---
07 Jun	Surface	0.8	1.0	14	0.8	0.8	4.6	53	---	---	---	---
	Bottom	0.8	1.0	---	1.0	0.8	1.4	---	---	---	---	---
23 Jun	Surface	1.3	1.3	19	1.3	1.3	17	25	---	---	---	---
	Bottom	1.3	1.3	---	1.5	1.3	28	34	---	---	---	---
09 Jul	Surface	1.1	1.1	120	1.4	1.4	27	150	---	---	---	---
	Bottom	1.2	1.2	---	1.3	1.4	24	150	---	---	---	---
22 Jul	Surface	2.4	2.4	78	2.4	2.4	6.8	130	---	---	---	---
	Bottom	2.2	2.4	---	2.5	2.5	3.8	54	---	---	---	---
05 Aug	Surface	0.8	1.3	81	1.2	5.8	6.5	1.3	13	1.0	4100	17
	Bottom	0.8	1.0	---	1.1	1.1	1.3	120	---	1.0	8.1	12
19 Aug	Surface	1.1	1.1	72	1.1	1.2	1.2	65	72	2.1	7.9	9.7
	Bottom	0.8	1.1	---	1.0	1.2	1.2	59	---	1.6	3200	9.8
02 Sep	Surface	0.8	0.8	45	1.3	0.9	1.0	130	150	1.4	80	13
	Bottom	0.8	0.8	---	1.2	1.0	1.2	120	---	1.4	4100	45
21 Sep	Surface	1.0	1.0	29	1.0	1.3	6.5	26	84	3.9	12	8.0
	Bottom	1.0	1.0	---	1.1	1.2	6.3	16	---	3.9	1700	11
05 Oct	Surface	1.0	1.0	29	1.1	1.1	2.6	9.9	100	1.3	10	13
	Bottom	1.0	1.0	---	1.1	1.0	2.7	60	---	1.1	4.0	11
03 Nov	Surface	1.5	1.5	48	2.2	2.3	4.4	28	38	2.6	24	44
	Bottom	1.5	1.6	---	1.9	2.1	4.2	45	---	2.2	30	44
08 Dec	Surface	17	37	30	65	260	29	130	25	---	380	---
	Bottom	---	---	---	---	---	31	130	---	---	1800	---

--- No sample available for analysis

Table 5B Chloride Concentration in Samples from Surface and Bottom Waters (mg·l^{-1}) - 1977

Date	Sampling Depth	Station										
		1	2	3	4	5	10	11	12	13	14	15
12 Jan	Surface	140	80	19	260	2400	220	51	61	710	3200	---
	Bottom	800	410	---	1100	2700	300	82	---	1500	3000	---
07 Feb	Surface	17	58	150	160	910	77	86	12	120	450	270
	Bottom	16	72	---	78	940	77	110	---	5700	2800	60
01 Mar	Surface	31	40	74	190	1100	690	110	130	150	490	480
	Bottom	50	63	---	170	1200	800	110	---	630	330	2400
15 Mar	Surface	30	46	22	94	110	200	99	86	78	350	210
	Bottom	43	44	---	73	190	390	170	---	940	4200	280
30 Mar	Surface	38	30	64	91	550	1200	110	100	540	470	210
	Bottom	54	49	---	92	660	1200	120	---	800	3300	410
12 Apr	Surface	2.5	2.6	19	2.8	3.1	9.8	98	48	150	180	200
	Bottom	2.4	2.6	---	2.5	2.9	5.2	100	---	180	2800	200
25 Apr	Surface	1.4	1.4	13	1.5	1.9	17	24	59	140	120	100
	Bottom	1.4	1.5	---	1.6	1.9	4.5	220	---	150	2100	110
10 May	Surface	1.8	2.0	2.0	1.8	1.9	13	19	65	55	11	24
	Bottom	1.7	1.8	---	1.7	1.8	15	19	---	6.3	13	27
26 May	Surface	1.3	1.2	3.2	1.5	1.3	2.2	17	50	3.6	5.9	8.2
	Bottom	1.3	1.3	---	1.2	1.3	2.5	17	---	3.0	6.4	8.8
08 Jun	Surface	1.6	1.2	1.3	1.2	1.5	1.2	11	22	2.2	5.7	9.0
	Bottom	1.7	1.4	---	1.2	1.2	1.3	11	---	2.4	6.5	9.0
23 Jun	Surface	1.5	1.5	14	1.5	1.5	9.1	94	110	3.5	3.4	5.5
	Bottom	1.4	1.8	---	1.5	1.6	11	99	---	2.0	3.4	5.2
07 Jul	Surface	1.0	1.0	8.5	1.0	1.0	4.6	110	88	2.0	3.1	6.6
	Bottom	1.0	1.0	---	1.0	1.0	9.1	110	---	2.3	2.4	5.6
21 Jul	Surface	1.0	1.1	1.7	0.9	1.1	1.8	150	140	1.7	5.0	9.6
	Bottom	1.0	1.1	---	0.9	1.0	1.3	130	---	1.7	1.5	9.4
02 Aug	Surface	1.2	1.2	2.7	1.1	1.0	1.4	5.5	12	1.3	2.3	4.3
	Bottom	1.2	1.2	---	1.0	1.0	1.4	2.4	---	1.2	3.0	3.2
17 Aug	Surface	1.4	1.3	1.5	1.4	1.3	1.3	4.5	6.0	2.6	2.5	2.8
	Bottom	1.2	1.3	---	1.2	1.2	1.3	2.8	---	2.1	2.5	2.5

--- No sample available for analysis

Table 6A Colour in Samples from Surface and Bottom Waters (APHA units) - 1976

Date	Sampling Depth	Station										
		1	2	3	4	5	10	11	12	13	14	15
12 Apr	Surface	30	35	300	30	35	40	400	---	---	---	---
	Bottom	30	30	---	30	40	40	220	---	---	---	---
27 Apr	Surface	50	50	1000	45	45	75	300	---	---	---	---
	Bottom	60	60	---	55	55	70	280	---	---	---	---
25 May	Surface	70	70	1100	70	70	70	130	---	---	---	---
	Bottom	70	70	---	70	70	65	---	---	---	---	---
07 Jun	Surface	35	45	500	30	35	45	400	---	---	---	---
	Bottom	30	35	---	30	25	30	---	---	---	---	---
23 Jun	Surface	40	25	350	30	25	30	550	---	---	---	---
	Bottom	30	25	---	35	35	45	570	---	---	---	---
09 Jul	Surface	20	25	230	25	25	40	55	---	---	---	---
	Bottom	30	20	---	30	25	40	180	---	---	---	---
22 Jul	Surface	20	20	500	20	15	55	60	---	---	---	---
	Bottom	25	20	---	20	20	30	120	---	---	---	---
05 Aug	Surface	20	25	>100	25	15	20	45	60	20	30	25
	Bottom	15	20	---	20	10	30	60	---	30	20	30
19 Aug	Surface	20	15	40	10	10	10	55	50	10	15	10
	Bottom	20	20	---	20	10	10	60	---	10	45	10
02 Sep	Surface	10	25	150	30	30	25	80	130	15	10	10
	Bottom	15	20	---	25	30	35	130	---	20	100	20
21 Sep	Surface	20	20	250	15	20	35	150	350	20	---	---
	Bottom	15	15	---	25	25	45	150	---	15	70	---
05 Oct	Surface	10	10	150	15	15	15	40	600	15	15	15
	Bottom	15	15	---	15	15	30	150	---	15	10	15
03 Nov	Surface	25	35	800	30	30	35	700	600	35	35	45
	Bottom	25	30	---	30	30	70	650	---	30	55	65
08 Dec	Surface	20	20	20	20	15	>100	>100	>100	---	25	---
	Bottom	---	---	---	---	---	>100	>100	---	---	20	---

--- No sample available for analysis

Table 6B Colour in Samples from Surface and Bottom Waters (APHA units) - 1977

Date	Sampling Depth	Station										
		1	2	3	4	5	10	11	12	13	14	15
12 Jan	Surface	15	25	30	50	10	30	80	>100	20	30	---
	Bottom	15	15	---	15	15	25	>100	---	25	30	---
07 Feb	Surface	20	20	560	25	10	25	50	280	15	15	110
	Bottom	15	20	---	20	15	30	55	---	5	15	30
01 Mar	Surface	25	15	60	25	20	130	300	280	20	25	55
	Bottom	15	20	---	20	20	100	330	---	20	5	25
15 Mar	Surface	20	20	>100	20	20	20	>100	>100	10	30	>100
	Bottom	15	20	---	20	20	15	>100	---	20	10	50
30 Mar	Surface	10	20	>100	20	15	30	>100	>100	25	40	80
	Bottom	15	15	---	20	20	30	>100	---	25	25	45
12 Apr	Surface	35	40	>100	35	35	40	>100	>100	30	30	50
	Bottom	40	35	---	35	40	45	>100	---	30	30	50
25 Apr	Surface	40	40	>100	35	40	70	>100	>100	50	55	75
	Bottom	40	40	---	40	35	55	>100	---	40	40	55
10 May	Surface	40	40	40	40	40	100	>100	>100	40	40	50
	Bottom	40	40	---	40	40	>100	>100	---	40	40	40
26 May	Surface	20	20	80	20	20	25	>100	>100	20	25	25
	Bottom	20	20	---	20	20	25	>100	---	20	25	30
08 Jun	Surface	20	20	25	25	30	20	>100	>100	30	30	45
	Bottom	25	20	---	25	25	30	>100	---	35	25	40
23 Jun	Surface	20	30	50	20	20	30	>100	>100	20	20	25
	Bottom	20	25	---	20	20	40	>100	---	30	30	25
07 Jul	Surface	25	25	55	30	20	30	>100	>100	20	25	25
	Bottom	30	20	---	40	20	35	>100	---	<5	20	20
21 Jul	Surface	5	5	10	5	10	5	50	>100	5	5	5
	Bottom	5	5	---	10	5	10	>100	---	10	10	10
02 Aug	Surface	10	5	40	5	5	10	25	40	5	5	10
	Bottom	5	10	---	5	10	10	15	---	5	5	15
17 Aug	Surface	10	20	25	15	5	10	35	45	5	5	10
	Bottom	15	10	---	10	5	15	25	---	10	10	5

--- No sample available for analysis

Table 7A Dissolved Oxygen Concentration in Samples from Surface and Bottom Waters ($mg \cdot l^{-1}$) - 1976

Date	Sampling Depth	Station										
		1	2	3	4	5	10	11	12	13	14	15
12 Apr	Surface	11.9	11.6	---	11.9	11.9	11.5	5.0	---	---	---	---
	Bottom	12.1	11.5	---	11.1	11.5	11.4	10.4	---	---	---	---
27 Apr	Surface	11.5	11.5	1.0	10.9	10.9	10.8	6.7	---	---	---	---
	Bottom	11.4	11.3	---	11.1	10.9	9.0	7.0	---	---	---	---
25 May	Surface	11.2	11.0	---	11.2	11.1	10.9	7.0	---	---	---	---
	Bottom	11.2	11.0	---	11.0	10.9	9.4	---	---	---	---	---
07 Jun	Surface	11.3	9.9	<1.9	11.2	11.1	10.4	3.4	---	---	---	---
	Bottom	11.2	10.1	---	11.1	11.0	9.5	---	---	---	---	---
23 Jun	Surface	10.9	10.5	<1.0	10.6	10.6	10.3	---	---	---	---	---
	Bottom	11.0	10.6	---	10.6	10.7	9.8	2.6	---	---	---	---
09 Jul	Surface	10.4	10.3	1.7	10.3	10.4	7.3	6.3	---	---	---	---
	Bottom	10.5	10.2	---	10.3	10.0	8.4	<1.0	---	---	---	---
22 Jul	Surface	10.5	10.4	<1.0	10.6	10.2	9.4	6.2	---	---	---	---
	Bottom	10.6	10.2	---	10.4	10.2	8.1	3.8	---	---	---	---
05 Aug	Surface	10.0	9.8	6.6	9.9	---	---	---	---	---	---	---
	Bottom	9.9	9.9	---	9.9	9.8	9.8	---	---	---	---	---
19 Aug	Surface	9.6	9.7	6.0	9.6	9.8	9.7	5.8	5.8	9.7	8.3	8.2
	Bottom	9.7	9.7	---	9.3	9.2	9.7	5.4	---	9.7	<1.0	8.1
02 Sep	Surface	9.9	9.7	6.1	9.8	9.7	9.1	4.6	4.6	9.5	9.7	11.3
	Bottom	9.8	3.2	---	9.7	9.7	9.5	9.7	---	9.6	---	7.0
21 Sep	Surface	9.8	9.7	3.1	9.8	9.7	8.6	6.6	4.0	9.7	8.5	9.5
	Bottom	9.8	9.5	---	9.6	9.7	9.2	6.0	---	9.1	<1.0	6.2
05 Oct	Surface	9.9	9.9	6.4	9.6	9.7	9.5	9.1	2.7	9.9	8.1	7.1
	Bottom	10.0	9.5	---	10.0	9.8	8.6	6.9	---	10.0	9.1	6.7
03 Nov	Surface	---	11.0	5.7	11.6	11.2	11.3	---	2.6	9.4	9.1	8.4
	Bottom	11.2	11.1	---	11.2	11.2	11.6	---	---	10.1	7.0	8.4
08 Dec	Surface	12.3	11.9	12.1	12.8	---	10.2	6.1	6.1	---	11.8	---
	Bottom	---	---	---	---	---	9.5	5.7	---	---	11.3	---

--- No sample available for analysis

Table 7B Dissolved Oxygen Concentration in Samples from Surface and Bottom Waters ($mg \cdot l^{-1}$) - 1977

Date	Sampling Depth	Station										
		1	2	3	4	5	10	11	12	13	14	15
12 Jan	Surface	13.1	13.0	12.9	12.7	12.8	12.5	13.2	5.8	12.6	12.8	---
	Bottom	12.9	13.0	---	12.8	12.5	10.3	13.2	---	12.4	9.2	---
07 Feb	Surface	---	12.1	3.2	12.5	---	11.5	12.1	5.0	12.5	12.4	9.8
	Bottom	12.7	12.6	---	12.8	12.3	11.3	12.0	---	10.9	7.8	10.5
01 Mar	Surface	12.5	12.1	11.7	12.0	11.7	8.9	7.9	3.2	12.2	11.5	9.8
	Bottom	12.1	12.0	---	12.1	11.5	9.0	7.0	---	11.8	9.7	8.6
15 Mar	Surface	12.1	11.9	4.8	12.0	12.0	11.8	6.7	4.0	12.0	11.1	9.9
	Bottom	12.0	11.8	---	11.9	11.7	11.7	6.7	---	11.5	5.4	9.6
30 Mar	Surface	11.8	11.7	3.1	11.8	11.9	11.4	4.8	3.6	10.9	10.5	9.9
	Bottom	11.6	11.6	---	11.8	11.9	11.3	5.8	---	10.9	1.2	8.6
12 Apr	Surface	11.4	11.4	5.3	11.4	11.4	10.9	4.4	3.5	10.9	10.1	10.3
	Bottom	11.4	11.4	---	11.4	11.4	10.9	4.8	---	11.4	<1.0	9.5
25 Apr	Surface	10.8	11.1	3.0	11.1	11.1	10.4	8.4	1.6	10.1	9.8	10.0
	Bottom	11.1	10.8	---	11.1	11.1	9.8	8.6	---	10.1	<1.0	6.9
10 May	Surface	10.7	10.7	10.6	10.2	10.7	8.6	7.3	2.3	9.2	8.7	8.9
	Bottom	10.8	10.7	---	10.8	10.8	7.7	7.8	---	10.0	9.1	8.1
26 May	Surface	10.5	10.5	7.7	10.5	10.5	10.1	8.3	2.6	9.5	9.4	11.7
	Bottom	10.5	10.6	---	10.8	10.5	9.8	8.1	---	10.3	8.2	6.4
08 Jun	Surface	9.9	9.7	9.7	9.9	9.7	9.5	7.5	5.1	9.2	9.4	11.8
	Bottom	9.9	9.9	---	9.9	10.2	9.4	7.1	---	9.2	7.7	11.6
23 Jun	Surface	10.0	9.7	9.3	10.3	9.9	9.7	6.0	5.1	9.7	8.9	8.6
	Bottom	10.3	9.6	---	10.2	9.9	9.1	5.7	---	8.5	7.9	6.0
07 Jul	Surface	9.9	9.7	9.3	9.9	10.0	9.6	7.9	8.5	9.3	8.8	9.3
	Bottom	9.7	9.7	---	10.0	9.9	9.0	7.8	---	9.2	8.5	8.1
21 Jul	Surface	9.2	9.3	8.8	9.2	9.0	8.8	5..	6.5	---	7.5	7.2
	Bottom	9.2	8.7	---	9.2	9.2	8.6	5.6	---	9.2	5.6	7.0
02 Aug	Surface	9.2	8.9	6.8	9.5	9.3	8.7	7.3	6.8	9.0	8.3	8.0
	Bottom	9.5	9.7	---	9.4	9.2	8.4	8.0	---	9.4	6.4	6.7
17 Aug	Surface	8.9	8.4	6.9	9.1	8.8	8.2	7.2	6.1	7.2	6.9	9.3
	Bottom	8.6	8.4	---	8.6	8.2	8.2	6.9	---	7.2	5.7	4.4

--- No sample available for analysis

Table 7C Dissolved Oxygen (% air saturation) in Samples from Surface and Bottom Waters[1] - 1976

Date	Sampling Depth	Station										
		1	2	3	4	5	10	11	12	13	14	15
12 Apr	Surface	---	---	---	---	---	---	---	---	---	---	---
	Bottom	---	---	---	---	---	---	---	---	---	---	---
27 Apr	Surface	100.47	97.57	10.21	97.53	94.08	96.63	71.23	---	---	---	---
	Bottom	100.80	99.92	---	94.64	92.94	81.47	71.47	---	---	---	---
25 May	Surface	102.57	100.74	---	102.57	101.65	102.12	70.00	---	---	---	---
	Bottom	102.57	100.74	---	100.74	99.82	90.04	---	---	---	---	---
07 Jun	Surface	105.86	94.83	---	107.28	103.99	104.00	35.43	---	---	---	---
	Bottom	104.93	94.62	---	---	105.37	93.00	---	---	---	---	---
23 Jun	Surface	104.41	100.58	---	101.54	103.77	100.83	---	---	---	---	---
	Bottom	105.37	101.54	---	101.54	102.49	95.94	26.35	---	---	---	---
09 Jul	Surface	104.00	103.00	17.00	103.00	104.00	76.07	69.63	---	---	---	---
	Bottom	105.00	102.00	---	103.00	100.00	89.31	---	---	---	---	---
22 Jul	Surface	105.00	104.00	---	108.23	104.15	97.96	67.22	---	---	---	---
	Bottom	106.00	104.15	---	108.38	104.15	84.41	40.40	---	---	---	---
05 Aug	Surface	104.21	102.13	68.78	103.17	---	---	---	---	---	---	---
	Bottom	103.17	103.17	---	103.17	102.13	104.19	---	---	---	---	---
19 Aug	Surface	100.04	101.08	61.26	100.04	102.13	101.08	60.44	60.44	101.08	88.24	87.18
	Bottom	99.04	101.08	---	96.92	95.87	99.04	56.27	---	101.08	---	86.12
02 Sep	Surface	101.08	101.08	63.57	102.13	101.08	94.83	49.87	48.91	99.00	105.17	124.89
	Bottom	102.13	33.35	---	101.08	101.08	99.00	103.13	---	100.04	---	72.95
21 Sep	Surface	100.02	99.04	32.31	100.06	101.08	91.43	70.17	45.05	99.04	88.58	101.00
	Bottom	---	97.00	---	98.02	---	97.81	63.79	---	92.92	---	63.31
05 Oct	Surface	96.92	96.92	62.65	93.98	94.96	93.00	89.08	26.43	96.92	81.00	72.49
	Bottom	97.89	---	---	---	95.94	---	67.55	---	97.89	---	67.00
03 Nov	Surface	---	97.96	52.20	103.79	100.21	102.29	---	23.26	84.11	81.42	75.16
	Bottom	100.21	99.32	---	100.21	100.21	105.01	---	---	90.37	62.63	76.04
08 Dec	Surface	97.11	95.20	96.80	102.40	---	84.82	52.65	53.29	---	94.40	---
	Bottom	---	---	---	---	---	79.00	49.80	---	---	90.21	---

[1] See text for description of method used to calculate dissolved oxygen as % air saturation.

--- Data necessary for calculations of dissolved oxygen as % air saturation not available.

Table 7D Dissolved Oxygen (% air saturation) in Samples from Surface and Bottom Waters[1] - 1977

Date	Sampling Depth	Station										
		1	2	3	4	5	10	11	12	13	14	15
12 Jan	Surface	97.91	97.16	95.05	94.92	96.07	92.63	97.26	43.35	94.17	95.66	---
	Bottom	96.21	97.16	---	95.47	94.76	76.98	97.26	---	92.48	70.55	---
07 Feb	Surface	---	92.98	27.49	96.05	---	88.85	96.04	41.58	96.05	95.28	77.37
	Bottom	98.93	96.82	---	---	94.32	88.02	94.74	---	85.12	60.50	81.79
01 Mar	Surface	96.05	92.98	92.37	96.00	93.50	73.56	65.69	27.28	---	94.42	82.53
	Bottom	98.07	96.00	---	99.35	94.32	---	58.95	---	---	79.14	67.89
15 Mar	Surface	98.07	96.45	40.93	97.26	97.26	98.13	55.72	34.95	97.26	91.14	82.33
	Bottom	97.26	96.88	---	96.45	94.34	97.29	55.72	---	93.12	43.54	78.82
30 Mar	Surface	101.85	104.68	27.41	96.88	103.97	101.93	44.97	33.73	94.08	88.42	88.58
	Bottom	100.13	101.35	---	96.88	106.47	101.03	54.34	---	92.94	9.42	70.61
12 Apr	Surface	99.60	99.60	48.54	97.20	97.20	92.94	39.37	31.32	94.08	87.18	93.24
	Bottom	98.40	99.12	---	97.20	98.40	94.08	42.95	---	97.20	---	83.00
25 Apr	Surface	96.63	99.32	31.26	100.48	99.32	97.43	78.69	15.33	92.49	91.74	102.11
	Bottom	101.65	98.91	---	103.99	101.65	86.65	80.57	---	91.37	---	61.74
10 May	Surface	96.86	100.24	97.07	92.34	97.54	80.57	69.93	20.24	84.25	81.51	87.13
	Bottom	98.91	100.24	---	98.91	101.18	73.76	74.72	---	93.68	85.25	75.88
26 May	Surface	100.58	100.58	78.62	100.58	100.58	101.00	83.00	---	93.00	92.02	119.46
	Bottom	100.58	101.54	---	103.45	100.58	95.94	81.00	---	98.66	78.55	62.65
08 Jun	Surface	99.00	97.00	97.00	99.00	97.00	99.00	79.74	54.22	93.94	97.96	---
	Bottom	99.00	99.00	---	99.00	102.00	97.96	73.99	---	92.00	78.62	---
23 Jun	Surface	106.32	105.17	100.83	107.34	105.25	101.08	62.53	53.15	107.21	98.37	98.67
	Bottom	107.34	104.08	---	106.29	103.17	94.83	59.40	---	88.58	83.99	63.79
07 Jul	Surface	99.00	97.00	96.92	99.00	100.00	100.04	87.32	88.58	96.92	91.71	104.75
	Bottom	99.04	99.04	---	102.11	101.08	95.68	81.28	---	93.94	86.79	86.12
21 Jul	Surface	95.87	96.92	93.56	95.87	93.79	91.71	55.29	67.74	---	84.47	84.13
	Bottom	93.94	90.66	---	95.87	95.87	89.62	59.54	---	99.75	61.89	81.79
02 Aug	Surface	103.62	100.24	79.45	107.00	102.79	97.99	80.68	76.59	99.47	93.48	91.79
	Bottom	107.00	109.25	---	103.89	103.62	94.61	88.42	---	105.87	72.08	75.46
17 Aug	Surface	102.12	96.38	89.62	102.49	99.12	94.08	82.61	71.27	84.13	82.07	114.34
	Bottom	100.48	98.15	---	98.67	94.08	92.36	79.17	---	81.09	65.40	51.41

[1] See text for description of method used to calculate dissolved oxygen as % air saturation.
--- Data necessary for calculations of dissolved oxygen as % air saturation not available.

Table 8A Nitrate (as N) Concentration in Samples from Surface and Bottom Waters ($mg \cdot l^{-1}$) - 1976

Date	Sampling Depth	Station										
		1	2	3	4	5	10	11	12	13	14	15
12 Apr	Surface	0.08	0.08	0.06	0.09	0.09	0.09	0.07	---	---	---	---
	Bottom	0.08	0.08	---	0.08	0.09	0.09	0.08	---	---	---	---
27 Apr	Surface	0.07	0.07	0.03	0.07	0.07	0.07	0.01	---	---	---	---
	Bottom	0.07	0.07	---	0.07	0.07	0.01	0.01	---	---	---	---
25 May	Surface	0.08	0.08	0.03	0.08	0.08	0.09	0.08	---	---	---	---
	Bottom	0.08	0.08	---	0.08	0.08	0.09	---	---	---	---	---
07 Jun	Surface	0.08	0.08	0.10	0.09	0.11	0.13	0.04	---	---	---	---
	Bottom	0.11	0.09	---	0.09	0.11	0.10	---	---	---	---	---
23 Jun	Surface	0.05	0.05	0.14	0.05	0.04	0.04	0.09	---	---	---	---
	Bottom	0.05	0.05	---	0.04	0.04	0.04	0.09	---	---	---	---
09 Jul	Surface	0.04	0.04	<0.01	0.04	0.04	0.05	0.02	---	---	---	---
	Bottom	0.04	0.04	---	0.04	0.04	0.03	0.01	---	---	---	---
22 Jul	Surface	0.04	0.04	<0.01	0.04	0.04	0.03	0.02	---	---	---	---
	Bottom	0.04	0.04	---	0.04	0.04	0.03	---	---	---	---	---
05 Aug	Surface	0.03	0.03	<0.01	0.03	0.03	0.03	0.01	<0.01	0.03	<0.01	<0.01
	Bottom	0.03	0.04	---	0.03	0.03	0.03	0.02	---	0.03	0.02	<0.01
19 Aug	Surface	0.02	0.02	0.02	0.02	0.02	0.02	<0.01	0.10	0.02	0.02	0.02
	Bottom	0.02	0.02	---	0.02	0.02	0.02	0.02	---	0.03	<0.01	0.02
02 Sep	Surface	0.02	0.03	0.02	0.02	0.02	0.13	0.03	0.02	0.02	0.04	<0.01
	Bottom	0.03	0.03	---	0.02	0.02	0.02	0.01	---	0.04	<0.01	0.04
21 Sep	Surface	0.04	0.03	<0.01	0.03	0.03	0.04	0.04	0.01	0.05	0.07	0.07
	Bottom	0.04	0.03	---	0.03	0.03	0.03	0.04	---	0.04	0.02	0.12
05 Oct	Surface	0.02	0.01	0.02	0.02	0.02	0.02	0.02	0.01	0.02	0.03	0.03
	Bottom	0.02	0.01	---	0.02	0.02	0.02	0.01	---	0.02	0.02	0.03
03 Nov	Surface	0.08	0.08	0.08	0.08	0.09	0.09	1.3	1.7	0.09	0.10	0.03
	Bottom	0.07	0.08	---	0.08	0.09	0.09	0.52	---	0.09	0.11	0.29
08 Dec	Surface	0.11	0.12	0.12	0.11	0.12	5.2	0.99	6.3	---	0.21	---
	Bottom	---	---	---	---	---	5.2	0.97	---	---	0.41	---

--- No sample available for analysis

Table 8B Nitrate (as N) Concentration in Samples from Surface and Bottom Waters ($mg \cdot l^{-1}$) - 1977

Date	Sampling Depth	Station										
		1	2	3	4	5	10	11	12	13	14	15
12 Jan	Surface	0.11	0.11	0.11	0.10	0.16	0.12	0.10	0.58	0.13	0.14	---
	Bottom	0.12	0.12	---	0.13	0.16	0.12	0.18	---	0.18	0.40	---
07 Feb	Surface	0.11	0.11	0.06	0.08	0.12	0.11	0.13	0.32	0.12	0.12	0.25
	Bottom	0.11	0.11	---	0.11	0.12	0.11	0.13	---	0.20	0.17	0.23
01 Mar	Surface	0.12	0.13	0.11	0.13	0.15	0.38	1.3	1.7	0.12	0.16	0.34
	Bottom	0.12	0.13	---	0.13	0.13	0.29	1.3	---	0.14	0.18	0.19
15 Mar	Surface	0.16	0.16	0.11	0.10	0.29	0.29	0.45	0.34	0.13	0.27	1.2
	Bottom	0.17	0.18	---	0.10	0.11	0.18	0.27	---	0.18	0.75	0.52
30 Mar	Surface	0.11	0.10	0.18	0.12	0.13	0.14	0.16	0.17	0.23	0.16	0.19
	Bottom	0.10	0.41	---	0.12	0.13	0.14	0.18	---	0.16	0.10	0.18
12 Apr	Surface	0.06	0.07	0.02	0.06	0.07	0.05	0.04	0.22	0.06	0.07	0.08
	Bottom	0.07	0.10	---	0.09	0.07	0.05	0.36	---	0.06	<0.01	0.08
25 Apr	Surface	0.10	0.08	0.10	0.09	0.11	0.08	0.14	0.09	0.13	0.16	0.23
	Bottom	0.09	0.09	---	0.10	0.08	0.08	0.08	---	0.13	0.03	0.18
10 May	Surface	0.14	0.14	0.21	0.21	0.12	0.20	0.38	0.16	0.25	0.18	0.14
	Bottom	0.11	0.12	---	0.12	0.14	0.14	0.14	---	0.12	0.13	0.14
26 May	Surface	0.07	0.07	0.09	0.07	0.07	0.07	0.15	0.06	0.08	0.08	0.05
	Bottom	0.07	0.07	---	0.10	0.07	0.07	0.09	---	0.07	0.09	0.07
08 Jun	Surface	0.11	0.70	0.10	0.16	0.15	0.16	0.08	0.07	0.11	0.12	0.13
	Bottom	0.11	0.13	---	0.09	0.17	0.09	0.15	---	0.09	0.10	0.07
23 Jun	Surface	0.07	0.11	0.15	0.07	0.05	0.08	0.20	0.11	0.09	0.08	0.07
	Bottom	0.11	0.09	---	0.05	0.08	0.07	0.19	---	0.07	0.09	0.10
07 Jul	Surface	0.06	0.20	0.10	0.06	0.16	0.06	0.04	0.08	0.09	0.05	0.12
	Bottom	0.29	0.05	---	0.06	0.07	0.05	0.03	---	0.07	0.10	0.07
21 Jul	Surface	0.41	0.07	4.3	0.11	5.2	0.18	0.08	0.17	0.05	0.15	4.5
	Bottom	3.8	0.12	---	0.13	0.08	0.07	0.15	---	0.16	2.9	0.10
02 Aug	Surface	0.05	0.05	0.07	0.09	0.04	0.04	0.05	0.09	0.05	0.04	0.05
	Bottom	0.04	0.04	---	0.04	0.05	0.07	0.04	---	0.07	0.06	0.07
17 Aug	Surface	0.05	0.04	0.05	0.07	0.06	0.05	0.06	0.09	0.13	0.03	0.03
	Bottom	0.04	0.05	---	0.05	0.05	0.05	0.05	---	0.08	0.05	<0.01

--- No sample available for analysis

Table 9A Nitrite (as N) Concentration in Samples from Surface and Bottom Waters ($\mu g \cdot l^{-1}$) - 1976

Date	Sampling Depth	Station										
		1	2	3	4	5	10	11	12	13	14	15
12 Apr	Surface	0.01	0.01	0.02	0.01	0.01	0.01	0.01	---	---	---	---
	Bottom	0.01	0.01	---	0.01	0.01	0.01	0.01	---	---	---	---
27 Apr	Surface	0.01	0.01	0.01	0.01	0.01	0.01	0.01	---	---	---	---
	Bottom	0.01	0.01	---	0.01	0.01	0.07	0.01	---	---	---	---
25 May	Surface	0.01	0.01	0.03	0.01	0.01	0.01	0.01	---	---	---	---
	Bottom	0.01	0.01	---	0.01	0.01	0.01	---	---	---	---	---
07 Jun	Surface	<0.01	<0.01	0.03	<0.01	<0.01	<0.01	0.01	---	---	---	---
	Bottom	<0.01	<0.01	---	<0.01	<0.01	<0.01	---	---	---	---	---
23 Jun	Surface	0.01	0.01	0.03	0.01	0.01	0.01	0.005	---	---	---	---
	Bottom	0.01	0.01	---	0.01	0.01	0.01	0.005	---	---	---	---
09 Jul	Surface	0.01	0.01	0.02	0.01	0.01	<0.005	0.01	---	---	---	---
	Bottom	0.01	0.01	---	0.01	0.01	0.01	0.005	---	---	---	---
22 Jul	Surface	0.05	0.005	0.06	0.005	0.01	0.01	0.01	---	---	---	---
	Bottom	0.005	0.005	---	0.005	0.005	0.01	0.01	---	---	---	---
05 Aug	Surface	<0.005	<0.005	0.04	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
	Bottom	<0.005	<0.005	---	<0.005	<0.005	<0.005	<0.005	---	<0.005	<0.005	<0.005
19 Aug	Surface	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	<0.005
	Bottom	0.005	0.01	---	0.01	0.01	0.01	0.01	---	0.01	0.02	<0.005
02 Sep	Surface	<0.005	<0.005	0.02	0.005	0.005	0.01	0.01	---	0.005	0.01	0.005
	Bottom	<0.005	<0.005	---	0.01	0.005	0.01	0.01	---	0.01	<0.005	0.01
21 Sep	Surface	0.01	0.01	0.05	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.01
	Bottom	0.01	0.01	---	0.01	0.01	0.01	0.02	---	0.01	0.02	0.01
05 Oct	Surface	<0.005	<0.005	0.01	<0.005	<0.005	<0.005	<0.005	0.01	<0.005	0.005	0.005
	Bottom	<0.005	<0.005	---	<0.005	<0.005	0.005	<0.005	---	<0.005	<0.005	0.005
03 Nov	Surface	0.005	0.01	0.03	0.01	0.01	0.005	0.03	0.03	0.01	0.005	0.01
	Bottom	0.005	0.01	---	0.01	0.01	0.01	0.02	---	0.01	0.01	0.01
08 Dec	Surface	<0.005	<0.005	<0.005	<0.005	<0.005	0.04	0.01	0.05	---	<0.005	---
	Bottom	---	---	---	---	---	0.04	0.01	---	---	<0.005	---

--- No sample available for analysis

Table 9B Nitrite (as N) Concentration in Samples from Surface and Bottom Waters ($mg \cdot l^{-1}$) - 1977

Date	Sampling Depth	Station										
		1	2	3	4	5	10	11	12	13	14	15
12 Jan	Surface	<0.005	<0.005	<0.005	<0.005	0.005	0.005	0.01	0.02	0.01	0.005	---
	Bottom	<0.005	<0.005	---	<0.005	0.005	0.005	0.01	---	0.01	<0.005	---
07 Feb	Surface	<0.005	<0.005	0.03	<0.005	<0.005	<0.005	<0.005	0.01	<0.005	<0.005	0.01
	Bottom	<0.005	<0.005	---	<0.005	<0.005	<0.005	0.005	---	<0.005	<0.005	0.01
01 Mar	Surface	<0.005	<0.005	0.01	<0.005	0.005	0.01	0.02	0.03	<0.005	0.055	0.01
	Bottom	<0.005	<0.005	---	0.005	0.005	0.01	0.02	---	<0.005	<0.005	0.01
15 Mar	Surface	<0.005	<0.005	0.03	<0.005	<0.005	<0.005	0.01	0.01	<0.005	<0.005	0.01
	Bottom	<0.005	<0.005	---	<0.005	<0.005	<0.005	0.01	---	<0.005	<0.005	0.005
30 Mar	Surface	<0.005	0.005	0.05	<0.005	<0.005	<0.005	0.02	0.02	<0.005	<0.005	<0.005
	Bottom	<0.005	0.005	---	<0.005	<0.005	0.005	0.02	---	<0.005	0.01	0.01
12 Apr	Surface	0.01	0.02	0.04	0.01	0.02	0.01	0.01	0.01	0.11	0.01	0.01
	Bottom	0.01	0.02	---	0.01	0.02	0.01	0.01	---	0.01	0.02	0.01
25 Apr	Surface	0.005	0.01	0.04	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.01
	Bottom	0.005	0.01	---	0.005	0.01	0.01	0.01	---	0.01	0.01	0.01
10 May	Surface	0.01	0.01	0.01	0.01	0.01	0.01	0.005	0.01	0.01	0.01	0.01
	Bottom	0.01	0.01	---	0.01	0.01	0.01	0.01	---	0.01	0.01	0.01
26 May	Surface	<0.005	<0.005	0.01	0.005	<0.005	0.005	<0.005	0.03	<0.005	<0.005	0.005
	Bottom	<0.005	<0.005	---	<0.005	<0.005	0.01	<0.005	---	0.005	<0.005	0.01
08 Jun	Surface	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.01	<0.005	<0.005	<0.005
	Bottom	<0.005	<0.005	---	<0.005	<0.005	<0.005	<0.005	---	<0.005	<0.005	<0.005
23 Jun	Surface	<0.005	<0.005	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
	Bottom	<0.005	<0.005	---	<0.005	<0.005	<0.005	<0.005	---	<0.005	0.005	<0.005
07 Jul	Surface	<0.005	<0.005	<0.005	<0.005	<0.005	0.01	0.03	0.03	<0.005	<0.005	<0.005
	Bottom	<0.005	<0.005	---	<0.005	<0.005	0.01	0.03	---	<0.005	<0.005	<0.005
21 Jul	Surface	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
	Bottom	<0.005	<0.005	---	<0.005	<0.005	<0.005	<0.005	---	<0.005	<0.005	<0.005
02 Aug	Surface	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
	Bottom	<0.005	<0.005	---	<0.005	<0.005	<0.005	<0.005	---	<0.005	<0.005	<0.005
17 Aug	Surface	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.01	<0.005	<0.005	<0.005
	Bottom	<0.005	<0.005	---	<0.005	<0.005	<0.005	<0.005	---	<0.005	<0.005	<0.005

--- No sample available for analysis

Table 10A Non-filterable Residue Concentration in Samples from Surface and Bottom Waters ($mg \cdot l^{-1}$) - 1976

Date	Sampling Depth	Station										
		1	2	3	4	5	10	11	12	13	14	15
12 Apr	Surface	55	75	120	43	39	36	46	---	---	---	---
	Bottom	60	66	---	52	39	35	42	---	---	---	---
27 Apr	Surface	200	170	530	120	110	150	54	---	---	---	---
	Bottom	250	360	---	190	160	910	44	---	---	---	---
25 May	Surface	120	130	670	98	310	120	64	---	---	---	---
	Bottom	320	140	---	110	230	1600	---	---	---	---	---
07 Jun	Surface	89	76	550	79	120	75	150	---	---	---	---
	Bottom	96	360	---	100	80	260	---	---	---	---	---
23 Jun	Surface	200	200	520	150	250	140	250	---	---	---	---
	Bottom	190	190	---	260	200	280	330	---	---	---	---
09 Jul	Surface	170	160	150	94	600	69	36	---	---	---	---
	Bottom	98	160	---	95	250	310	550	---	---	---	---
22 Jul	Surface	71	81	1500	64	85	52	33	---	---	---	---
	Bottom	50	65	---	57	87	280	2600	---	---	---	---
05 Aug	Surface	73	67	340	51	76	55	42	64	50	200	17
	Bottom	57	91	---	75	28	77	270	---	22	15	16
19 Aug	Surface	170	100	190	69	85	65	90	69	71	64	16
	Bottom	80	110	---	63	120	90	37	---	43	620	30
02 Sep	Surface	82	75	240	76	100	110	60	76	50	17	14
	Bottom	67	73	---	62	73	170	80	---	63	120	35
21 Sep	Surface	97	57	390	76	68	53	48	52	26	---	18
	Bottom	79	85	---	58	75	100	190	---	36	210	22
05 Oct	Surface	77	35	450	30	21	25	22	110	15	11	9
	Bottom	43	33	---	45	20	230	40	---	23	19	20
03 Nov	Surface	26	35	290	21	22	20	18	36	15	14	8
	Bottom	26	42	---	23	23	98	120	---	20	100	44
08 Dec	Surface	<10	11	<10	12	<10	52	18	43	---	13	---
	Bottom	---	---	---	---	---	54	60	---	---	22	---

--- No sample available for analysis

Table 10B Non-filterable Residue Concentration in Samples from Surface and Bottom Waters ($mg \cdot l^{-1}$) - 1977

Date	Sampling Depth	Station										
		1	2	3	4	5	10	11	12	13	14	15
12 Jan	Surface	12	12	33	34	13	17	19	40	12	14	---
	Bottom	13	---	---	13	13	20	21	---	29	15	---
07 Feb	Surface	27	26	840	80	46	<10	<10	25	<10	10	<10
	Bottom	36	190	---	34	52	25	10	---	23	<10	98
01 Mar	Surface	19	18	34	20	70	23	150	260	16	12	11
	Bottom	36	17	---	150	67	230	180	---	17	13	140
15 Mar	Surface	24	29	250	27	33	22	39	44	22	20	17
	Bottom	44	27	---	86	72	26	43	---	18	27	44
30 Mar	Surface	14	15	360	13	15	46	66	54	<10	10	<10
	Bottom	170	37	---	16	14	140	52	---	<10	33	84
12 Apr	Surface	90	87	310	71	93	55	27	20	51	26	13
	Bottom	95	83	---	91	97	190	29	---	180	53	29
25 Apr	Surface	61	43	260	41	65	21	23	42	17	17	<10
	Bottom	64	110	---	40	72	31	27	---	30	64	31
10 May	Surface	110	100	64	94	180	62	43	---	36	39	20
	Bottom	110	140	---	120	130	270	50	---	78	83	33
26 May	Surface	52	40	36	190	36	48	27	100	24	11	10
	Bottom	50	44	---	46	34	150	21	---	25	19	14
08 Jun	Surface	96	68	40	73	67	74	24	28	34	16	9
	Bottom	89	87	---	42	71	53	78	---	40	10	<5
23 Jun	Surface	66	50	47	66	77	61	75	50	19	15	13
	Bottom	92	30	---	42	57	100	100	---	88	120	31
07 Jul	Surface	56	52	54	58	63	60	160	200	30	21	10
	Bottom	56	71	---	54	69	170	190	---	55	27	32
21 Jul	Surface	79	59	32	80	89	70	56	150	88	14	15
	Bottom	83	110	---	71	77	79	390	---	74	320	13
02 Aug	Surface	60	27	34	41	66	36	36	25	18	11	6
	Bottom	84	55	---	98	69	47	59	---	33	29	210
17 Aug	Surface	25	7	10	17	26	16	10	22	11	9	<5
	Bottom	48	25	---	20	24	22	69	---	23	54	6

--- No sample available for analysis

Table IIA pH of Samples from Surface and Bottom Waters - 1976

Date	Sampling Depth	Station										
		1	2	3	4	5	10	11	12	13	14	15
12 Apr	Surface	7.8	7.0	6.7	7.8	7.8	7.8	6.8	---	---	---	---
	Bottom	7.8	7.8	---	7.8	7.8	7.7	7.1	---	---	---	---
27 Apr	Surface	7.6	7.4	4.9	7.6	7.6	7.6	7.2	---	---	---	---
	Bottom	7.7	7.7	---	7.7	7.7	---	7.2	---	---	---	---
25 May	Surface	8.0	8.0	6.1	8.0	7.9	7.9	7.2	---	---	---	---
	Bottom	7.9	7.9	---	7.9	7.9	7.8	---	---	---	---	---
07 Jun	Surface	8.0	7.4	6.3	8.0	8.0	7.3	6.9	---	---	---	---
	Bottom	8.0	7.3	---	7.9	8.0	7.8	---	---	---	---	---
23 Jun	Surface	8.0	8.0	6.7	8.0	8.0	7.9	7.0	---	---	---	---
	Bottom	8.0	7.9	---	8.0	8.0	7.9	7.1	---	---	---	---
09 Jul	Surface	8.0	8.0	6.8	7.9	8.0	7.7	7.8	---	---	---	---
	Bottom	8.0	7.9	---	7.9	7.9	7.7	7.1	---	---	---	---
22 Jul	Surface	7.9	7.9	5.9	7.9	7.9	7.4	7.4	---	---	---	---
	Bottom	7.9	7.9	---	7.8	7.9	7.6	6.6	---	---	---	---
05 Aug	Surface	7.9	7.8	6.1	7.8	7.9	7.9	7.3	7.2	7.9	7.3	7.4
	Bottom	7.9	7.9	---	7.9	7.8	8.4	7.2	---	8.3	8.2	9.0
19 Aug	Surface	8.0	7.9	7.2	7.9	7.9	7.9	7.7	7.3	7.7	7.8	7.9
	Bottom	8.0	8.0	---	8.0	7.9	7.9	7.6	---	7.8	7.5	7.7
02 Sep	Surface	8.0	7.9	7.1	7.9	7.9	7.8	7.4	7.2	7.8	7.8	8.1
	Bottom	7.9	7.9	---	7.9	7.9	7.9	7.4	---	7.8	7.2	7.6
21 Sep	Surface	8.0	8.0	6.9	8.0	8.0	7.8	7.3	7.0	7.9	7.9	7.8
	Bottom	7.9	8.0	---	8.0	8.0	7.7	7.5	---	7.8	7.3	7.5
05 Oct	Surface	7.8	7.8	7.0	7.9	7.9	7.9	7.6	6.5	7.9	7.6	7.4
	Bottom	7.8	7.5	---	7.9	7.9	7.7	7.3	---	7.9	7.7	7.4
03 Nov	Surface	7.9	7.9	6.7	7.9	7.9	7.8	6.6	7.0	7.8	7.8	8.0
	Bottom	7.8	7.9	---	8.0	7.9	7.9	7.3	---	8.0	8.0	7.9
08 Dec	Surface	7.8	7.7	7.7	7.7	7.7	6.5	7.1	6.7	---	7.7	---
	Bottom	---	---	---	---	---	6.6	7.1	---	---	7.6	---

--- No sample available for analysis

Table 11B pH of Samples from Surface and Bottom Waters - 1977

Date	Sampling Depth	Station										
		1	2	3	4	5	10	11	12	13	14	15
12 Jan	Surface	7.8	7.8	7.6	7.6	7.8	7.8	7.5	6.6	7.8	7.8	---
	Bottom	7.7	7.8	---	7.7	7.7	7.8	7.2	---	7.7	7.5	---
07 Feb	Surface	7.8	7.8	5.4	7.7	7.8	7.7	7.6	6.7	7.8	7.8	7.3
	Bottom	7.7	7.8	---	7.8	7.8	7.6	7.4	---	7.8	7.5	7.6
01 Mar	Surface	7.8	7.8	7.5	7.8	7.8	7.4	7.0	7.1	7.9	7.8	7.6
	Bottom	7.8	7.8	---	7.8	7.8	7.5	7.0	---	7.8	7.7	7.6
15 Mar	Surface	7.8	7.8	5.5	7.8	7.8	7.8	6.7	6.6	7.9	7.7	7.4
	Bottom	7.8	7.8	---	7.8	7.8	7.8	6.9	---	7.8	7.5	7.5
30 Mar	Surface	7.7	7.7	4.6	7.7	7.7	7.6	6.6	6.5	7.6	7.7	7.6
	Bottom	7.7	7.2	---	7.7	7.7	7.5	6.6	---	7.6	7.1	7.6
12 Apr	Surface	7.9	8.0	5.9	8.0	8.0	7.9	6.9	6.3	8.0	7.9	7.9
	Bottom	7.9	8.0	---	7.9	8.0	7.9	7.0	---	7.9	7.5	7.8
25 Apr	Surface	7.9	7.8	5.6	7.8	7.8	7.4	7.3	6.3	7.7	7.7	7.7
	Bottom	7.8	7.8	---	7.7	7.8	7.7	7.3	---	7.7	7.1	7.6
10 May	Surface	7.9	7.8	7.6	7.8	7.9	7.4	7.3	6.6	7.7	7.6	7.6
	Bottom	7.8	7.9	---	7.8	7.9	7.4	7.3	---	7.8	7.7	7.6
26 May	Surface	8.0	8.0	7.3	8.0	7.9	7.8	7.5	6.2	7.8	7.8	8.1
	Bottom	7.9	8.0	---	7.9	7.9	7.8	7.5	---	7.8	7.7	7.6
08 Jun	Surface	7.8	7.8	7.7	7.8	7.8	7.7	7.4	7.0	7.8	7.7	8.3
	Bottom	7.7	7.9	---	7.9	7.8	7.8	7.2	---	7.8	7.6	8.0
23 Jun	Surface	7.9	7.8	7.5	7.9	7.8	7.6	7.0	6.9	7.6	7.6	7.5
	Bottom	7.8	7.8	---	7.9	7.9	7.6	7.0	---	7.8	7.5	7.3
07 Jul	Surface	7.8	7.7	7.1	7.9	7.8	7.7	7.4	7.4	7.7	7.6	7.8
	Bottom	7.8	7.8	---	7.8	7.8	7.6	7.4	---	7.7	7.7	7.5
21 Jul	Surface	7.9	8.0	7.1	7.9	7.3	7.8	7.8	7.4	8.0	7.8	7.3
	Bottom	7.8	7.9	---	8.0	8.0	7.9	7.6	---	7.9	7.5	7.8
02 Aug	Surface	7.9	7.6	7.0	7.9	7.9	7.8	7.5	7.3	7.9	7.8	7.8
	Bottom	7.9	7.6	---	7.9	7.9	7.9	7.7	---	7.4	7.4	7.6
17 Aug	Surface	7.9	7.2	7.3	7.9	7.9	7.9	7.5	7.6	7.8	7.7	8.1
	Bottom	7.7	7.7	---	7.9	7.9	7.8	7.6	---	7.7	7.6	7.6

--- No sample available for analysis

Table 12A Salinity of Samples from Surface and Bottom Waters (ppt) - 1976

Date	Sampling Depth	Station										
		1	2	3	4	5	10	11	12	13	14	15
12 Apr	Surface	<1	<1	<1	<1	<1	<1	<1	---	---	---	---
	Bottom	<1	<1	---	<1	<1	<1	<1	---	---	---	---
27 Apr	Surface	<1	<1	<1	<1	<1	<1	<1	---	---	---	---
	Bottom	<1	<1	---	<1	<1	<1	<1	---	---	---	---
25 May	Surface	<1	<1	<1	<1	<1	<1	<1	---	---	---	---
	Bottom	<1	<1	---	<1	<1	<1	---	---	---	---	---
07 Jun	Surface	<1	<1	<1	<1	<1	<1	<1	---	---	---	---
	Bottom	<1	<1	---	<1	<1	<1	---	---	---	---	---
23 Jun	Surface	<1	<1	<1	<1	<1	<1	<1	---	---	---	---
	Bottom	<1	<1	---	<1	<1	<1	<1	---	---	---	---
09 Jul	Surface	<1	<1	<1	<1	<1	<1	<1	---	---	---	---
	Bottom	<1	<1	---	<1	<1	<1	<1	---	---	---	---
22 Jul	Surface	<1	<1	<1	<1	<1	<1	<1	---	---	---	---
	Bottom	<1	<1	---	<1	<1	<1	<1	---	---	---	---
05 Aug	Surface	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Bottom	<1	<1	---	<1	<1	<1	<1	---	<1	6	<1
19 Aug	Surface	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Bottom	<1	<1	---	<1	<1	<1	<1	---	<1	5	<1
02 Sep	Surface	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Bottom	<1	<1	---	<1	<1	<1	<1	---	<1	6	<1
21 Sep	Surface	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Bottom	<1	<1	---	<1	<1	<1	<1	---	<1	<1	<1
05 Oct	Surface	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Bottom	<1	<1	---	<1	<1	<1	<1	---	<1	<1	<1
03 Nov	Surface	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Bottom	<1	<1	---	<1	<1	<1	<1	---	<1	<1	<1
08 Dec	Surface	<1	<1	<1	<1	<1	<1	<1	<1	---	<1	---
	Bottom	---	---	---	---	---	<1	<1	---	---	2	---

--- No sample available for analysis

Table 12B Salinity of Samples from Surface and Bottom Waters (ppt) - 1977

Date	Sampling Depth	Station										
		1	2	3	4	5	10	11	12	13	14	15
12 Jan	Surface	<1	<1	<1	<1	4	<1	<1	<1	<1	<1	---
	Bottom	2	<1	---	2	5	<1	<1	---	2	2	---
07 Feb	Surface	<1	<1	<1	<1	1	<1	<1	<1	<1	<1	<1
	Bottom	<1	<1	---	<1	2	<1	<1	---	10	4	<1
01 Mar	Surface	<1	<1	<1	<1	1	1	<1	<1	<1	<1	<1
	Bottom	<1	<1	---	<1	1	<1	<1	---	<1	6	<1
15 Mar	Surface	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Bottom	<1	<1	---	<1	<1	<1	<1	---	1	5	<1
30 Mar	Surface	<1	<1	<1	<1	<1	1	<1	<1	<1	<1	<1
	Bottom	<1	<1	---	<1	<1	1	<1	---	<1	5	<1
12 Apr	Surface	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Bottom	<1	<1	---	<1	<1	<1	<1	---	<1	5	<1
25 Apr	Surface	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	<1
	Bottom	<1	<1	---	<1	<1	<1	<1	---	1	4	<1
10 May	Surface	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Bottom	<1	<1	---	<1	<1	<1	<1	---	<1	<1	<1
26 May	Surface	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Bottom	<1	<1	---	<1	<1	<1	<1	---	<1	<1	<1
08 Jun	Surface	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Bottom	<1	<1	---	<1	<1	<1	<1	---	<1	<1	<1
23 Jun	Surface	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Bottom	<1	<1	---	<1	<1	<1	<1	---	<1	<1	<1
07 Jul	Surface	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Bottom	<1	<1	---	<1	<1	<1	<1	---	<1	<1	<1
21 Jul	Surface	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Bottom	<1	<1	---	<1	<1	<1	<1	---	<1	<1	<1
02 Aug	Surface	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Bottom	<1	<1	---	<1	<1	<1	<1	---	<1	<1	<1
17 Aug	Surface	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Bottom	<1	<1	---	<1	<1	<1	<1	---	<1	<1	<1

--- No sample available for analysis

Table 13A Sulphate Concentration in samples from surface and bottom waters ($mg \cdot l^{-1}$) - 1976

Date	Sampling Depth	Station										
		1	2	3	4	5	10	11	12	13	14	15
12 Apr	Surface	8.4	8.5	11	8.6	7.8	9.3	11	---	---	---	---
	Bottom	8.8	8.7	---	8.9	7.8	8.8	9.0	---	---	---	---
27 Apr	Surface	8.0	9.0	23	10	9.0	10	12	---	---	---	---
	Bottom	10	10	---	9.0	10	10	9.0	---	---	---	---
25 May	Surface	7.1	7.8	17	7.5	7.4	7.4	9.3	---	---	---	---
	Bottom	7.4	7.5	---	7.7	7.6	7.5	---	---	---	---	---
07 Jun	Surface	7.3	7.4	8.8	7.1	7.2	13	10	---	---	---	---
	Bottom	7.1	7.7	---	7.1	7.1	7.4	---	---	---	---	---
23 Jun	Surface	7.0	7.0	14	7.5	8.0	10	13	---	---	---	---
	Bottom	7.0	8.5	---	7.0	7.5	12	14	---	---	---	---
09 Jul	Surface	6.6	5.9	11	6.8	6.8	7.0	10	---	---	---	---
	Bottom	7.0	6.7	---	6.7	7.0	5.7	7.6	---	---	---	---
22 Jul	Surface	6.3	6.0	7.8	6.3	6.2	6.3	4.6	---	---	---	---
	Bottom	6.5	6.6	---	6.5	6.1	6.4	6.4	---	---	---	---
05 Aug	Surface	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	3.0	<2.0	2.6
	Bottom	2.7	<2.0	---	<2.0	6.5	<2.0	<2.0	---	7.6	10	<2.0
19 Aug	Surface	8.5	8.5	23	8.5	7.5	8.0	25	<1	8.0	7.5	11
	Bottom	8.0	7.5	---	7.5	8.0	7.5	13	---	7.5	6.0	8.0
02 Sep	Surface	7.7	7.5	12	7.8	7.2	7.5	8.4	---	6.7	7.8	---
	Bottom	7.1	7.5	---	7.6	7.5	7.5	8.0	---	7.7	6.7	7.8
21 Sep	Surface	<2.0	<2.0	4.0	<2.0	<2.0	<2.0	4.0	12	<2.0	<2.0	<2.0
	Bottom	5.0	<2.0	---	<2.0	4.0	7.0	3.0	---	4.0	7.0	<6.0
05 Oct	Surface	7.5	7.0	11	7.0	7.0	6.5	10	15	7.0	8.0	8.0
	Bottom	7.0	7.5	---	7.5	7.0	7.0	7.5	---	7.5	7.0	8.0
03 Nov	Surface	7.3	6.8	16	8.1	6.4	7.2	18	22	9.7	11	14
	Bottom	6.9	7.0	---	7.2	6.7	12	14	---	8.2	12	16
08 Dec	Surface	11	13	12	17	54	22	27	26	---	56	---
	Bottom	---	---	---	---	---	22	27	---	---	270	---

--- No sample available for analysis

Table 13B Sulphate Concentration in Samples from Surface and Bottom Waters (mg·l⁻¹) - 1977

Date	Sampling Depth	Station										
		1	2	3	4	5	10	11	12	13	14	15
12 Jan	Surface	27	20	11	50	400	39	12	11	110	55	---
	Bottom	110	75	---	190	430	55	13	---	240	220	---
07 Feb	Surface	11	16	29	33	140	18	18	19	28	33	50
	Bottom	10	12	---	20	150	18	20	---	870	380	98
01 Mar	Surface	13	13	18	34	110	92	22	33	31	91	83
	Bottom	15	17	---	33	120	110	21	---	200	550	170
15 Mar	Surface	12	15	8.9	21	25	36	10	9.8	19	61	37
	Bottom	14	14	---	18	31	61	20	---	180	490	49
30 Mar	Surface	13	15	8.1	20	87	190	7.7	10	90	80	46
	Bottom	15	14	---	20	100	190	25	---	110	490	70
12 Apr	Surface	14	---	---	14	14	13	8.0	9.0	36	44	38
	Bottom	13	13	---	13	14	15	11	---	40	450	42
25 Apr	Surface	8.8	7.6	13	7.2	7.8	7.2	9.4	11	24	23	20
	Bottom	8.7	7.9	---	7.6	6.9	10	8.6	---	66	340	24
10 May	Surface	6.7	7.5	7.0	7.1	6.6	7.3	7.4	3.2	9.5	8.6	10
	Bottom	7.5	7.1	---	6.8	7.3	7.5	7.6	---	7.0	9.0	10
26 May	Surface	5.7	6.8	6.1	19	19	5.7	5.8	7.2	5.8	6.0	18
	Bottom	19	19	---	5.1	6.3	6.0	5.3	---	6.2	5.9	6.1
08 Jun	Surface	12	6.0	6.0	6.0	5.5	9.5	20	9.5	6.0	8.0	7.5
	Bottom	6.0	6.0	---	7.0	6.0	6.0	7.5	---	6.5	11	7.0
23 Jun	Surface	6.3	6.3	7.8	6.3	6.5	6.8	15	19	6.6	6.6	7.0
	Bottom	6.2	6.3	---	6.4	6.2	8.0	17	---	5.8	6.8	7.2
07 Jul	Surface	6.1	5.9	6.7	5.9	5.9	6.0	15	15	5.8	6.1	6.4
	Bottom	6.0	5.8	---	6.2	6.1	6.6	16	---	5.4	6.0	7.5
21 Jul	Surface	6.5	6.6	7.0	6.5	6.7	6.7	15	22	6.8	7.3	7.9
	Bottom	6.7	6.5	---	6.8	6.5	6.7	19	---	6.8	7.2	7.9
02 Aug	Surface	7.3	6.8	7.4	7.0	12	6.2	7.8	8.3	6.8	7.2	6.8
	Bottom	13	6.4	---	7.0	6.4	6.5	6.8	---	6.2	6.5	6.4
17 Aug	Surface	7.3	6.6	7.2	6.9	7.1	7.2	7.2	7.3	6.8	7.2	7.7
	Bottom	7.9	7.8	---	7.1	6.8	7.7	7.2	---	8.2	7.3	7.3

--- No sample available for analysis

Table 14A Sulphide Concentration in Samples from Surface and Bottom Waters ($\mu g \cdot l^{-1}$) - 1976

Date	Sampling Depth	Station										
		1	2	3	4	5	10	11	12	13	14	15
12 Apr	Surface	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	---	---	---	---
	Bottom	<0.05	<0.05	---	<0.05	<0.05	<0.05	<0.05	---	---	---	---
27 Apr	Surface	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	---	---	---	---
	Bottom	<0.05	<0.05	---	<0.05	<0.05	<0.05	<0.05	---	---	---	---
25 May	Surface	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	---	---	---	---
	Bottom	<0.05	<0.05	---	<0.05	<0.05	<0.05	---	---	---	---	---
07 Jun	Surface	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	---	---	---	---
	Bottom	<0.05	<0.05	---	<0.05	<0.05	<0.05	---	---	---	---	---
23 Jun	Surface	---	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	---	---	---	---
	Bottom	<0.05	<0.05	---	<0.05	<0.05	<0.05	<0.05	---	---	---	---
09 Jul	Surface	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	---	---	---	---
	Bottom	<0.05	<0.05	---	<0.05	<0.05	<0.05	0.09	---	---	---	---
22 Jul	Surface	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	---	---	---	---
	Bottom	<0.05	<0.05	---	<0.05	<0.05	<0.05	<0.05	---	---	---	---
05 Aug	Surface	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.26	<0.05
	Bottom	<0.05	<0.05	---	<0.05	<0.05	<0.05	0.24	---	<0.05	<0.05	<0.05
19 Aug	Surface	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Bottom	<0.05	<0.05	---	<0.05	<0.05	<0.05	<0.05	---	<0.05	<0.05	<0.05
02 Sep	Surface	<0.05	<0.05	---	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Bottom	<0.05	<0.05	---	<0.05	<0.05	<0.05	<0.05	---	<0.05	0.28	<0.05
21 Sep	Surface	---	---	---	---	---	---	---	---	---	---	---
	Bottom	---	---	---	---	---	---	---	---	---	---	---
05 Oct	Surface	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Bottom	<0.05	<0.05	---	<0.05	<0.05	<0.05	<0.05	---	<0.05	<0.05	<0.05
03 Nov	Surface	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Bottom	<0.05	<0.05	---	<0.05	<0.05	<0.05	<0.05	---	<0.05	<0.05	<0.05
08 Dec	Surface	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	---	<0.05	---
	Bottom	---	---	---	---	---	<0.05	<0.05	---	---	<0.05	---

--- No sample available for analysis

Table 14B Sulphide Concentration in Samples from Surface and Bottom Waters ($\mu g \cdot l^{-1}$) - 1977

Date	Sampling Depth	Station										
		1	2	3	4	5	10	11	12	13	14	15
12 Jan	Surface	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	---
	Bottom	<0.05	<0.05	---	<0.05	<0.05	<0.05	<0.05	---	<0.05	<0.05	---
07 Feb	Surface	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Bottom	<0.05	<0.05	---	<0.05	<0.05	<0.05	<0.05	---	<0.05	<0.05	<0.05
01 Mar	Surface	<0.05	<0.05	<0.05	<0.05	0.11	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Bottom	<0.05	<0.05	---	<0.05	<0.05	<0.05	<0.05	---	<0.05	<0.05	<0.05
15 Mar	Surface	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Bottom	<0.05	<0.05	---	<0.05	<0.05	<0.05	<0.05	---	<0.05	<0.05	<0.05
30 Mar	Surface	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Bottom	<0.05	<0.05	---	<0.05	<0.05	<0.05	<0.05	---	<0.05	<0.05	<0.05
12 Apr	Surface	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Bottom	<0.05	<0.05	---	<0.05	<0.05	<0.05	<0.05	---	<0.05	<0.05	<0.05
25 Apr	Surface	<0.05	---	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Bottom	<0.05	<0.05	---	<0.05	<0.05	<0.05	<0.05	---	<0.05	<0.05	<0.05
10 May	Surface	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Bottom	<0.05	<0.05	---	<0.05	<0.05	<0.05	<0.05	---	<0.05	<0.05	<0.05
26 May	Surface	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Bottom	<0.05	<0.05	---	<0.05	<0.05	<0.05	<0.05	---	<0.05	<0.05	<0.05
08 Jun	Surface	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Bottom	<0.05	<0.05	---	<0.05	<0.05	<0.05	<0.05	---	<0.05	<0.05	<0.05
23 Jun	Surface	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Bottom	<0.05	<0.05	---	<0.05	<0.05	<0.05	<0.05	---	<0.05	<0.05	<0.05
07 Jul	Surface	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Bottom	<0.05	<0.05	---	<0.05	<0.05	<0.05	<0.05	---	<0.05	<0.05	<0.05
21 Jul	Surface	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Bottom	<0.05	<0.05	---	<0.05	<0.05	<0.05	<0.05	---	<0.05	0.06	<0.05
02 Aug	Surface	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Bottom	<0.05	<0.05	---	<0.05	<0.05	<0.05	<0.05	---	<0.05	<0.05	<0.05
17 Aug	Surface	---	---	---	---	---	---	---	---	---	---	---
	Bottom	---	---	---	---	---	---	---	---	---	---	---

--- No sample available for analysis

Table 15A Temperature of Samples from Surface and Bottom Waters (°C) - 1976

Date	Sampling Depth	Station										
		1	2	3	4	5	10	11	12	13	14	15
12 Apr	Surface	---	---	---	---	---	---	---	---	---	---	---
	Bottom	---	---	---	---	---	---	---	---	---	---	---
27 Apr	Surface	8.0	6.8	15	9.0	7.5	9.0	17	---	---	---	---
	Bottom	8.5	8.5	---	7.0	7.0	9.5	15	---	---	---	---
25 May	Surface	10	10	13	10	10	11	14	---	---	---	---
	Bottom	10	10	---	10	10	12	---	---	---	---	---
07 Jun	Surface	11	12	15	12	11	14	16	---	---	---	---
	Bottom	11	11	---	---	12	13	---	---	---	---	---
23 Jun	Surface	12	12	14	12	13	13	15	---	---	---	---
	Bottom	12	12	---	12	12	13	15	---	---	---	---
09 Jul	Surface	14	14	14	14	14	16	19	---	---	---	---
	Bottom	14	14	---	14	14	17	20	---	---	---	---
22 Jul	Surface	14	14	15	15	15	16	18	---	---	---	---
	Bottom	14	15	---	16	15	16	17	---	---	---	---
05 Aug	Surface	16	16	16	16	16	17	20	---	17	18	19
	Bottom	16	16	---	16	16	17	18	---	16	12	19
19 Aug	Surface	16	16	15	16	16	16	16	16	16	17	17
	Bottom	15	16	---	16	16	15	16	---	16	12	17
02 Sep	Surface	15	16	16	16	16	16	18	17	16	18	19
	Bottom	16	16	---	16	16	16	17	---	16	11	16
21 Sep	Surface	15	15	16	15	16	17	17	20	15	16	17
	Bottom	---	15	---	15	---	17	17	---	15	14	15
05 Oct	Surface	13	13	13	13	13	13	13	13	13	14	15
	Bottom	13	---	---	---	13	---	13	---	13	---	14
03 Nov	Surface	8.5	8.8	10	9.0	9.0	9.5	11	9.0	9.0	9.0	9.0
	Bottom	9.0	9.0	---	9.0	9.0	9.5	---	---	9.0	9.0	9.5
08 Dec	Surface	4.0	4.5	4.5	4.5	4.5	6.0	7.5	8.0	---	4.5	---
	Bottom	---	---	---	---	---	6.0	8.0	---	---	4.5	---

--- No sample available for analysis

Table 15B Temperature of Samples from Surface and Bottom Waters (°C) - 1977

Date	Sampling Depth	Station										
		1	2	3	4	5	10	11	12	13	14	15
12 Jan	Surface	2.0	2.0	1.5	2.0	2.3	1.7	1.5	2.0	2.0	2.0	---
	Bottom	2.0	2.0	---	2.0	2.7	2.0	1.5	---	2.0	3.0	---
07 Feb	Surface	3.0	3.0	7.3	3.0	3.0	3.2	4.2	6.0	3.0	3.0	4.0
	Bottom	3.5	3.0	---	---	3.0	3.5	4.0	---	4.0	3.5	3.5
01 Mar	Surface	3.0	3.0	4.0	4.5	4.5	5.8	6.0	7.0	---	5.5	6.5
	Bottom	5.0	4.5	---	5.5	5.5	---	6.5	---	---	5.5	4.0
15 Mar	Surface	5.0	5.0	7.0	5.0	5.0	6.0	6.0	8.0	5.0	5.5	6.0
	Bottom	5.0	5.5	---	5.0	4.8	6.0	6.0	---	5.0	5.0	5.5
30 Mar	Surface	7.5	9.0	8.5	5.5	8.0	9.0	11	11	7.5	6.5	9.0
	Bottom	7.5	8.0	---	5.5	9.0	9.0	11	---	7.0	4.0	5.5
12 Apr	Surface	8.0	8.0	10	7.0	7.0	7.0	9.0	9.0	7.5	7.5	9.5
	Bottom	7.5	7.8	---	7.0	7.5	7.5	9.0	---	7.0	5.0	8.0
25 Apr	Surface	9.0	9.0	16	9.5	9.0	11	11	12	10	11	15
	Bottom	10	10	---	11	10	8.5	11	---	9.5	8.0	9.0
10 May	Surface	9.5	11	10	9.5	9.8	11	12	8.3	10	11	13
	Bottom	10	11	---	10	11	12	12	---	11	11	11
26 May	Surface	12	12	15	12	12	14	14	---	13	13	15
	Bottom	12	12	---	12	12	13	14	---	12	12	13
08 Jun	Surface	14	14	14	14	14	16	17	17	15	16	---
	Bottom	14	14	---	14	14	16	16	---	14	15	---
23 Jun	Surface	17	18	18	16	17	16	16	16	19	19	21
	Bottom	16	18	---	16	16	16	16	---	16	17	17
07 Jul	Surface	14	14	16	14	14	16	19	16	16	16	20
	Bottom	15	15	---	15	15	17	16	---	15	15	17
21 Jul	Surface	16	16	17	16	16	16	18	16	17	20	22
	Bottom	15	16	---	16	16	16	17	---	18	19	22
02 Aug	Surface	20	20	22	20	19	20	19	20	19	20	21
	Bottom	20	20	---	19	20	20	19	---	20	20	20
17 Aug	Surface	21	21	22	20	20	21	21	22	22	23	25
	Bottom	22	22	---	21	21	20	21	---	20	21	22

--- No sample available for analysis

Table 16A Total Organic Carbon Concentration in Samples from Surface and Bottom Waters (mg·l⁻¹) - 1976

Date	Sampling Depth	Station										
		1	2	3	4	5	10	11	12	13	14	15
12 Apr	Surface	3	11	59	3	4	4	32	---	---	---	---
	Bottom	3	16	---	3	4	4	11	---	---	---	---
27 Apr	Surface	14	14	310	14	15	14	17	---	---	---	---
	Bottom	14	15	---	14	14	34	16	---	---	---	---
25 May	Surface	6	6	730	5	8	6	42	---	---	---	---
	Bottom	6	6	---	7	8	23	---	---	---	---	---
07 Jun	Surface	4	6	150	4	6	6	43	---	---	---	---
	Bottom	5	9	---	4	4	48	---	---	---	---	---
23 Jun	Surface	5	5	54	5	5	5	99	---	---	---	---
	Bottom	5	5	---	5	7	16	120	---	---	---	---
09 Jul	Surface	5	6	270	4	4	8	8	---	---	---	---
	Bottom	4	7	---	5	4	15	290	---	---	---	---
22 Jul	Surface	2	2	1300	4	4	11	18	---	---	---	---
	Bottom	2	3	---	4	5	9	780	---	---	---	---
05 Aug	Surface	4	3	150	3	4	3	6	---	2	3	3
	Bottom	4	3	---	4	4	4	77	---	2	7	4
19 Aug	Surface	3	3	48	2	3	3	6	7	3	3	4
	Bottom	3	5	---	4	4	2	6	---	3	15	4
02 Sep	Surface	4	3	27	5	5	3	6	12	3	5	5
	Bottom	4	3	---	5	5	6	12	---	2	12	7
21 Sep	Surface	2	2	120	1	2	4	8	21	3	4	5
	Bottom	1	3	---	3	4	8	19	---	3	10	4
05 Oct	Surface	2	3	140	3	3	3	3	35	2	3	2
	Bottom	2	3	---	3	3	36	6	---	2	3	2
03 Nov	Surface	---	---	---	---	---	---	---	---	---	---	---
	Bottom	---	---	---	---	---	---	---	---	---	---	---
08 Dec	Surface	3	4	3	3	3	26	8	22	---	4	---
	Bottom	---	---	---	---	---	25	12	---	---	4	---

--- No sample available for analysis

Table 16B Total Organic Carbon Concentration in Samples from Surface and Bottom Waters ($mg \cdot l^{-1}$) - 1977

Date	Sampling Depth	Station										
		1	2	3	4	5	10	11	12	13	14	15
12 Jan	Surface	3	3	5	3	4	3	4	28	4	4	---
	Bottom	4	3	---	3	4	5	10	---	4	6	---
07 Feb	Surface	3	5	400	3	5	2	5	20	3	2	13
	Bottom	3	14	---	4	3	4	4	---	3	3	8
01 Mar	Surface	2	3	11	3	3	13	28	66	3	4	7
	Bottom	3	2	---	4	5	21	50	---	3	4	12
15 Mar	Surface	2	2	150	2	2	2	29	31	2	3	5
	Bottom	4	2	---	2	3	2	22	---	2	3	7
30 Mar	Surface	4	4	93	4	6	7	31	33	5	5	10
	Bottom	23	5	---	4	3	7	29	---	5	6	6
12 Apr	Surface	5	3	110	2	4	5	33	40	5	5	8
	Bottom	6	3	---	2	3	9	31	---	6	7	8
25 Apr	Surface	6	5	130	5	7	11	14	49	7	7	10
	Bottom	6	6	---	5	8	8	13	---	11	13	9
10 May	Surface	7	6	6	6	7	10	11	51	6	6	8
	Bottom	5	8	---	6	6	16	11	---	7	6	7
26 May	Surface	3	3	18	3	3	4	9	99	5	4	7
	Bottom	4	3	---	5	4	11	9	---	5	4	6
08 Jun	Surface	4	4	3	4	6	4	10	26	2	4	6
	Bottom	4	4	---	4	4	4	13	---	5	4	6
23 Jun	Surface	3	3	8	3	3	4	8	8	4	4	4
	Bottom	3	3	---	3	3	4	8	---	4	4	7
07 Jul	Surface	2	2	4	2	2	4	4	5	2	3	4
	Bottom	3	2	---	2	2	7	4	---	3	3	3
21 Jul	Surface	4	4	3	4	4	4	7	10	3	3	4
	Bottom	4	4	---	4	4	4	9	---	4	8	4
02 Aug	Surface	3	3	10	3	2	2	5	8	3	2	3
	Bottom	4	3	---	3	2	3	4	---	2	4	7
17 Aug	Surface	2	3	4	1	1	2	3	4	2	3	3
	Bottom	2	2	---	<1	1	3	2	---	2	4	3

--- No sample available for analysis

Table 17A Total Phosphorus Concentration in Samples from Surface and Bottom Waters ($mg \cdot l^{-1}$) - 1976

Date	Sampling Depth	Station										
		1	2	3	4	5	10	11	12	13	14	15
12 Apr	Surface	0.090	0.090	0.90	0.090	0.070	0.060	0.20	---	---	---	---
	Bottom	0.090	0.080	---	0.020	0.080	0.020	0.60	---	---	---	---
27 Apr	Surface	0.27	0.24	0.22	0.18	0.18	0.070	0.090	---	---	---	---
	Bottom	0.30	0.45	---	0.27	0.23	0.81	0.21	---	---	---	---
25 May	Surface	0.053	0.037	0.27	0.029	0.031	0.040	0.096	---	---	---	---
	Bottom	0.035	0.042	---	0.42	0.046	0.10	---	---	---	---	---
07 Jun	Surface	0.11	0.072	0.27	0.088	0.14	0.089	0.15	---	---	---	---
	Bottom	0.083	0.23	---	0.087	0.11	0.39	---	---	---	---	---
23 Jun	Surface	0.32	0.21	0.24	0.20	0.20	0.17	0.18	---	---	---	---
	Bottom	0.19	0.20	---	0.25	0.20	0.43	0.37	---	---	---	---
09 Jul	Surface	0.22	0.21	0.21	0.12	0.32	0.080	0.084	---	---	---	---
	Bottom	0.26	0.27	---	0.16	0.23	0.38	3.6	---	---	---	---
22 Jul	Surface	0.065	0.070	0.32	0.065	0.085	0.075	0.070	---	---	---	---
	Bottom	0.045	0.060	---	0.060	0.080	0.32	4.4	---	---	---	---
05 Aug	Surface	0.10	0.12	0.47	0.093	0.10	0.083	0.17	0.20	0.095	0.17	0.079
	Bottom	0.093	0.12	---	0.098	0.076	0.11	1.7	---	0.095	0.053	0.058
19 Aug	Surface	0.18	0.094	0.18	0.066	0.080	0.071	0.20	0.21	0.45	0.051	0.041
	Bottom	0.082	0.092	---	0.069	0.098	0.057	0.14	---	0.088	0.65	0.046
02 Sep	Surface	0.074	0.072	0.38	0.090	0.16	0.18	0.16	0.17	0.13	0.060	0.075
	Bottom	0.060	0.070	---	0.070	0.078	0.20	0.16	---	0.15	0.14	0.14
21 Sep	Surface	0.064	0.035	0.26	0.050	0.048	0.038	0.078	0.19	0.031	0.038	---
	Bottom	0.067	0.061	---	0.036	0.058	0.089	0.23	---	0.040	0.28	0.042
05 Oct	Surface	0.040	0.033	0.17	0.038	0.027	0.040	0.044	0.70	0.068	0.029	0.025
	Bottom	0.038	0.034	---	0.036	0.028	0.60	0.094	---	0.030	0.034	0.038
03 Nov	Surface	0.036	0.045	0.20	0.040	0.044	0.033	0.14	0.29	0.35	0.050	0.040
	Bottom	0.035	0.050	---	0.042	0.040	0.16	0.20	---	0.074	0.16	0.080
08 Dec	Surface	0.022	0.024	0.021	0.025	0.022	0.27	0.082	0.24	---	0.19	---
	Bottom	---	---	---	---	---	0.28	0.10	---	---	0.022	---

--- No sample available for analysis

Table 17B Total Phosphorus Concentration in Samples from Surface and Bottom Waters ($mg \cdot l^{-1}$) - 1977

Date	Sampling Depth	Station										
		1	2	3	4	5	10	11	12	13	14	15
12 Jan	Surface	0.023	0.014	0.040	0.040	0.033	0.030	0.035	0.12	0.047	0.041	---
	Bottom	0.033	0.032	---	0.030	0.035	0.033	0.053	---	0.046	0.064	---
07 Feb	Surface	0.012	<0.010	0.078	0.022	0.017	<0.010	<0.010	0.044	<0.010	<0.010	0.020
	Bottom	0.011	0.021	---	0.010	0.020	<0.010	<0.010	---	0.020	<0.010	0.096
01 Mar	Surface	0.038	0.036	0.047	0.042	0.088	0.088	0.34	0.68	0.038	0.050	0.063
	Bottom	0.052	0.035	---	0.12	0.083	0.28	0.36	---	0.043	0.064	0.26
15 Mar	Surface	0.029	0.030	0.15	0.032	0.031	0.031	0.16	0.23	0.030	0.050	0.059
	Bottom	0.046	0.030	---	0.087	0.080	0.043	0.15	---	0.057	0.055	0.10
30 Mar	Surface	0.027	0.028	0.25	0.026	0.019	0.060	0.21	0.17	0.039	0.040	0.039
	Bottom	0.16	0.045	---	0.027	0.030	0.19	0.17	---	0.041	0.097	0.15
12 Apr	Surface	0.14	0.19	0.26	0.10	0.13	0.095	0.14	0.14	0.11	0.062	0.044
	Bottom	0.15	0.18	---	0.14	0.13	0.23	0.14	---	0.25	0.14	0.070
25 Apr	Surface	0.085	0.065	0.16	0.070	0.085	0.080	0.070	0.17	0.060	0.065	0.064
	Bottom	0.080	0.14	---	0.065	0.090	0.060	0.070	---	0.25	0.16	0.096
10 May	Surface	0.11	0.10	0.080	0.10	0.19	0.090	0.079	0.20	0.075	0.079	0.079
	Bottom	0.12	0.15	---	0.12	0.14	0.32	0.083	---	0.10	0.11	0.079
26 May	Surface	0.059	0.048	0.052	0.18	0.043	0.065	0.066	0.29	0.15	0.048	0.080
	Bottom	0.058	0.054	---	0.055	0.042	0.15	0.062	---	0.11	0.052	0.067
08 Jun	Surface	0.096	0.082	0.058	0.10	0.075	0.075	0.063	0.095	0.074	0.047	0.053
	Bottom	0.099	0.087	---	0.098	0.091	0.069	0.12	---	0.088	0.039	0.068
23 Jun	Surface	0.052	0.073	0.044	0.11	0.078	0.060	0.14	0.092	0.032	0.029	0.050
	Bottom	0.095	0.048	---	0.071	0.086	0.098	0.18	---	0.11	0.17	0.15
07 Jul	Surface	0.062	0.054	0.051	0.048	0.065	0.064	0.18	0.20	0.046	0.043	0.039
	Bottom	0.060	0.073	---	0.050	0.065	0.16	0.20	---	0.078	0.042	0.10
21 Jul	Surface	0.083	0.061	0.047	0.067	0.096	0.087	0.085	0.20	0.11	0.038	0.047
	Bottom	0.098	0.12	---	0.075	0.076	0.091	0.14	---	0.093	0.39	0.054
02 Aug	Surface	0.057	0.033	0.048	0.047	0.065	0.045	0.055	0.061	0.036	0.030	0.032
	Bottom	0.072	0.055	---	0.090	0.062	0.056	0.060	---	0.044	0.048	0.12
17 Aug	Surface	0.053	0.030	0.035	0.039	0.053	0.057	0.043	0.078	0.045	0.033	0.027
	Bottom	0.085	0.029	---	0.040	0.049	0.044	0.11	---	0.082	0.11	0.050

--- No sample available for analysis

Table 18A Turbidity of Samples from Surface and Bottom Waters (FTU) - 1976

Date	Sampling Depth	Station										
		1	2	3	4	5	10	11	12	13	14	15
12 Apr	Surface	39	39	52	32	28	27	32	---	---	---	---
	Bottom	38	37	---	34	31	27	31	---	---	---	---
27 Apr	Surface	70	66	400	61	58	35	38	---	---	---	---
	Bottom	65	78	---	66	63	380	39	---	---	---	---
25 May	Surface	43	45	720	45	60	55	130	---	---	---	---
	Bottom	48	50	---	53	60	330	---	---	---	---	---
07 Jun	Surface	37	34	150	37	37	43	60	---	---	---	---
	Bottom	37	70	---	37	38	125	---	---	---	---	---
23 Jun	Surface	86	77	79	69	78	70	76	---	---	---	---
	Bottom	75	75	---	78	70	120	82	---	---	---	---
09 Jul	Surface	49	50	55	45	68	38	22	---	---	---	---
	Bottom	27	62	---	47	63	120	550	---	---	---	---
22 Jul	Surface	28	31	570	28	32	31	24	---	---	---	---
	Bottom	27	28	---	27	33	120	1500	---	---	---	---
05 Aug	Surface	11	12	70	12	11	12	39	66	16	57	5.0
	Bottom	11	11	---	12	12	13	44	---	13	8.2	4.5
19 Aug	Surface	48	52	95	38	43	45	77	68	40	24	13
	Bottom	36	53	---	40	55	50	92	---	33	330	21
02 Sep	Surface	34	34	140	33	34	53	60	77	27	14	8.0
	Bottom	32	35	---	32	34	64	72	---	29	50	23
21 Sep	Surface	28	20	3200	25	27	25	38	350	16	5.0	5.0
	Bottom	27	32	---	22	24	43	200	---	14	180	9.0
05 Oct	Surface	20	16	67	18	14	15	16	59	11	7.3	6.5
	Bottom	18	17	---	19	15	78	31	---	13	14	15
03 Nov	Surface	12	14	25	12	11	11	14	13	10	68	5.6
	Bottom	13	16	---	11	11	29	28	---	9.2	36	22
08 Dec	Surface	7.0	8.5	7.5	8.5	6.5	39	19	46	---	10	---
	Bottom	---	---	---	---	---	45	30	---	---	8.0	---

--- No sample available for analysis

Table 18B Turbidity of Samples from Surface and Bottom Waters (FTU) - 1977

Date	Sampling Depth	Station										
		1	2	3	4	5	10	11	12	13	14	15
12 Jan	Surface	5.0	5.0	10	8.0	4.0	5.0	10	20	4.0	5.0	---
	Bottom	4.0	5.0	---	5.0	4.0	6.0	20	---	4.0	2.0	---
07 Feb	Surface	12	11	1000	32	19	8.7	10	29	8.1	9.0	11
	Bottom	13	49	---	12	18	13	12	---	8.9	3.4	57
01 Mar	Surface	16	17	23	20	33	30	100	110	16	15	16
	Bottom	22	17	---	49	31	80	100	---	15	10	75
15 Mar	Surface	15	15	65	15	16	13	31	28	14	13	12
	Bottom	19	15	---	27	25	15	32	---	11	8.1	27
30 Mar	Surface	10	11	100	11	9.9	21	55	54	9.8	9.3	9.1
	Bottom	38	17	---	11	11	57	49	---	9.0	15	40
12 Apr	Surface	62	64	110	56	65	49	36	37	40	27	17
	Bottom	63	75	---	64	68	90	36	---	93	27	26
25 Apr	Surface	25	25	75	20	25	25	30	30	15	15	10
	Bottom	30	35	---	20	30	20	30	---	15	20	20
10 May	Surface	52	46	40	54	56	47	38	78	28	27	14
	Bottom	58	57	---	58	61	120	41	---	43	46	25
26 May	Surface	27	24	28	72	23	34	33	41	17	14	11
	Bottom	28	25	---	25	22	73	32	---	21	20	22
08 Jun	Surface	26	27	17	40	38	32	28	46	27	14	6.5
	Bottom	42	28	---	34	19	38	55	---	27	13	7.5
23 Jun	Surface	40	32	29	40	38	35	93	57	16	12	10
	Bottom	43	32	---	35	38	53	110	---	12	68	19
07 Jul	Surface	16	21	30	18	22	32	150	170	23	15	10
	Bottom	21	26	---	22	24	70	150	---	25	19	20
21 Jul	Surface	22	22	20	27	27	41	38	140	28	13	9.2
	Bottom	30	27	---	26	23	29	69	---	27	160	12
02 Aug	Surface	28	18	18	25	36	24	28	28	19	14	9.5
	Bottom	45	26	---	40	50	30	33	---	25	23	100
17 Aug	Surface	25	15	12	9.5	18	14	18	34	9.5	9.6	3.5
	Bottom	36	26	---	19	20	18	17	---	20	47	6.8

--- No sample available for analysis

Table 19 Cadmium Concentration in Sediment Samples ($mg \cdot kg^{-1}$) - 1976/1977

Date	Station									
	1	2	4	5	6	10	11	13	14	15
12 April 1976 *	<1	<1	<1	<1	-	<1	<1	-	-	-
25 May 1976 *	-	<1	-	<1	-	<1	<1	-	-	-
09 July 1976 +	-	-	<1	<1	-	<1	-	-	-	-
22 July 1976 *	-	-	-	<1	-	<1	<1	-	-	-
21 September 1976 +	-	<1	-	-	-	-	-	-	-	-
05 October 1976 +	-	-	<1	<1	-	<1	-	-	-	-
28 March 1977 ^	<1	<1	-	-	<1	<1	<1	-	-	-
26 April 1977 ^	<1	<1	-	-	<1	<1	<1	-	-	-
27 May 1977 ^	<1	<1	-	-	<1	<1	<1	-	-	-
24 June 1977 ^	<1	<1	-	-	<1	<1	<1	<1	<1	<1
18 July 1977 ^	<1	<1	-	-	<1	<1	<1	-	-	-
16 August 1977 ^	<1	<1	-	-	<1	<1	<1	-	-	-

* Samples collected using a Kajac-Brinkhurst core sampler

\+ Samples collected using a weighted Ekman dredge

^ Samples collected using an unweighted Ekman dredge

\- No sample collected

Table 20 Chromium Concentration in Sediment Samples ($\mu g \cdot kg^{-1}$) - 1976/1977

Date	Station									
	1	2	4	5	6	10	11	13	14	15
12 April 1976 *	42	39	44	41	-	45	41	-	-	-
25 May 1976 *	-	47	-	44	-	43	42	-	-	-
09 July 1976 +	-	-	42	44	-	47	-	-	-	-
22 July 1976 *	-	-	-	46	-	49	48	-	-	-
21 September 1976 +	-	42	-	-	-	-	-	-	-	-
05 October 1976 +	-	-	46	38	-	48	-	-	-	-
28 March 1977 ^	41	41	-	-	40	45	42	-	-	-
26 April 1977 ^	39	37	-	-	37	41	37	-	-	-
27 May 1977 ^	36	36	-	-	35	38	36	-	-	-
24 June 1977 ^	32	39	-	-	36	41	31	36	40	40
18 July 1977 ^	35	35	-	-	36	39	35	-	-	-
16 August 1977 ^	33	37	-	-	38	41	36	-	-	-

* Samples collected using a Kajac-Brinkhurst core sampler

\+ Samples collected using a weighted Ekman dredge

^ Samples collected using an unweighted Ekman dredge

\- No sample collected

Table 21 Copper Concentration in Sediment Samples ($\mu g \cdot kg^{-1}$) - 1976/1977

Date	Station									
	1	2	4	5	6	10	11	13	14	15
12 April 1976 *	35	37	37	36	-	41	38	-	-	-
25 May 1976 *	-	36	-	37	-	38	41	-	-	-
09 July 1976 +	-	-	40	38	-	54	-	-	-	-
22 July 1976 *	-	-	-	43	-	52	44	-	-	-
21 September 1976 +	-	38	-	-	-	-	-	-	-	-
05 October 1976 +	-	-	29	33	-	55	-	-	-	-
28 March 1977 ^	34	43	-	-	39	49	42	-	-	-
26 April 1977 ^	37	36	-	-	29	44	40	-	-	-
27 May 1977 ^	33	37	-	-	33	38	42	-	-	-
24 June 1977 ^	30	40	-	-	35	47	32	33	50	43
18 July 1977 ^	22	31	-	-	33	46	33	-	-	-
16 August 1977 ^	31	37	-	-	41	49	43	-	-	-

* Samples collected using a Kejac-Brinkhurst core sampler

\+ Samples collected using a weighted Ekman dredge

^ Samples collected using an unweighted Ekman dredge

\- No sample collected

Table 22 Iron Concentration in Sediment Samples ($mg \cdot kg^{-1}$) - 1976/1977

Date	Station									
	1	2	4	5	6	10	11	13	14	15
12 April 1976 *	30000	29000	32000	27000	-	33000	36000	-	-	-
25 May 1976 *	-	27000	-	29000	-	32000	32000	-	-	-
09 July 1976 +	-	-	31000	31000	-	45000	-	-	-	-
22 July 1976 *	-	-	-	29000	-	39000	37000	-	-	-
21 September 1976 +	-	32000	-	-	-	-	-	-	-	-
05 October 1976 +	-	-	29000	27000	-	45000	-	-	-	-
28 March 1977 ^	28000	32000	-	-	28000	39000	39000	-	-	-
26 April 1977 ^	29000	30000	-	-	26000	37000	38000	-	-	-
27 May 1977 ^	32000	34000	-	-	31000	43000	39000	-	-	-
24 June 1977 ^	30000	36000	-	-	32000	42000	39000	30000	41000	40000
18 July 1977 ^	23000	26000	-	-	28000	43000	30000	-	-	-
16 August 1977 ^	27000	30000	-	-	31000	39000	42000	-	-	-

* Samples collected using a Kejac-Brinkhurst core sampler

\+ Samples collected using a weighted Ekman dredge

^ Samples collected using an unweighted Ekman dredge

\- No sample collected

Table 23 Lead Concentration in Sediment Samples ($mg \cdot kg^{-1}$) - 1976/1977

Date	Station									
	1	2	4	5	6	10	11	13	14	15
12 April 1976 *	<13	14	<13	<13	-	<13	<13	-	-	-
25 May 1976 +	-	<13	-	<13	-	13	<13	-	-	-
09 July 1976 +	-	-	<13	<13	-	<13	-	-	-	-
22 July 1976 *	-	-	-	<13	-	<13	<13	-	-	-
21 September 1976 +	-	13	-	-	-	-	-	-	-	-
05 October 1976 +	-	-	<13	<13	-	<13	-	-	-	-
28 March 1977 ^	<12	<12	-	-	<12	<12	<12	-	-	-
26 April 1977 ^	<12	<12	-	-	<12	14	<12	-	-	-
27 May 1977 ^	<12	<12	-	-	<12	<12	<12	-	-	-
24 June 1977 ^	<12	<12	-	-	<12	<12	15	<12	18	<12
18 July 1977 ^	<12	<12	-	-	12	20	<12	-	-	-
16 August 1977 ^	<12	14	-	-	<12	18	14	-	-	-

* Samples collected using a Kajac-Brinkhurst core sampler

\+ Samples collected using a weighted Ekman dredge

^ Samples collected using an unweighted Ekman dredge

\- No sample collected

Table 24 Mercury Concentration in Sediment Samples ($mg \cdot kg^{-1}$) - 1976/1977

Date	Station									
	1	2	4	5	6	10	11	13	14	15
12 April 1976 *	<0.05	0.06	<0.05	0.07	-	<0.05	<0.05	-	-	-
25 May 1976 *	-	<0.05	-	<0.05	-	<0.05	0.05	-	-	-
09 July 1976 +	-	-	<0.05	<0.05	-	0.08	-	-	-	-
22 July 1976 *	-	-	-	<0.05	-	<0.04	0.06	-	-	-
21 September 1976 +	-	<0.05	-	-	-	-	-	-	-	-
05 October 1976 +	-	-	<0.05	<0.05	-	0.08	-	-	-	-
28 March 1977 ^	<0.05	<0.05	-	-	<0.05	<0.05	<0.05	-	-	-
26 April 1977 ^	0.04	<0.05	-	-	<0.05	<0.05	<0.05	-	-	-
27 May 1977 ^	<0.04	0.04	-	-	0.04	<0.04	<0.04	-	-	-
24 June 1977 ^	<0.04	<0.04	-	-	<0.04	0.06	<0.04	0.04	0.06	0.04
18 July 1977 ^	0.03	0.04	-	-	0.04	0.06	0.05	-	-	-
16 August 1977 ^	0.08	0.05	-	-	0.5	0.06	0.05	-	-	-

* Samples collected using a Kajac-Brinkhurst core sampler

\+ Samples collected using a weighted Ekman dredge

^ Samples collected using an unweighted Ekman dredge

\- No sample collected

Table 25 Nickel Concentration in Sediment Samples ($mg \cdot kg^{-1}$) - 1976/1977

Date	Station									
	1	2	4	5	6	10	11	13	14	15
12 April 1976 *	54	49	51	53	-	61	55	-	-	-
25 May 1976 *	-	50	-	55	-	52	58	-	-	-
09 July 1976 +	-	-	54	57	-	59	-	-	-	-
22 July 1976 *	-	-	-	57	-	57	55	-	-	-
21 September 1976 +	-	57	-	-	-	-	-	-	-	-
05 October 1976 +	-	-	51	52	-	61	-	-	-	-
28 March 1977 ^	50	59	-	-	47	59	54	-	-	-
26 April 1977 ^	51	52	-	-	50	54	47	-	-	-
27 May 1977 ^	50	54	-	-	50	51	49	-	-	-
24 June 1977 ^	44	54	-	-	48	58	44	50	58	55
18 July 1977 ^	37	46	-	-	44	52	46	-	-	-
16 August 1977 ^	42	48	-	-	49	55	48	-	-	-

* Samples collected using a Kejac-Brinkhurst core sampler

\+ Samples collected using a weighted Ekman dredge

^ Samples collected using an unweighted Ekman dredge

\- No sample collected

Table 26 Total Phosphorus Concentration in Sediment Samples ($mg \cdot kg^{-1}$) - 1976/1977

Date	Station									
	1	2	4	5	6	10	11	13	14	15
12 April 1976 *	720	740	800	770	-	830	860	-	-	-
25 May 1976 *	-	680	-	780	-	690	800	-	-	-
09 July 1976 +	-	-	690	850	-	930	-	-	-	-
22 July 1976 *	-	-	-	530	-	770	640	-	-	-
21 September 1976 +	-	730	-	-	-	-	-	-	-	-
05 October 1976 +	-	-	680	690	-	940	-	-	-	-
28 March 1977 ^	710	750	-	-	780	930	930	-	-	-
26 April 1977 ^	710	660	-	-	740	780	830	-	-	-
27 May 1977 ^	720	750	-	-	750	900	800	-	-	-
24 June 1977 ^	680	740	-	-	790	860	840	760	900	830
18 July 1977 ^	790	710	-	-	590	630	600	-	-	-
16 August 1977 ^	590	650	-	-	630	640	350	-	-	-

* Samples collected using a Kajac-Brinkhurst core sampler

\+ Samples collected using a weighted Ekman dredge

^ Samples collected using an unweighted Ekman dredge

\- No sample collected

Table 27 Total Volatile Residue Concentration in Sediment Samples ($\mu g \cdot g^{-1}$) - 1976/1977

Date	Station									
	1	2	4	5	6	10	11	13	14	15
12 April 1976 *	26	60	22	23	-	28	47	-	-	-
25 May 1976 *	-	21	-	26	-	38	36	-	-	-
09 July 1976 +	-	-	35	28	-	130	-	-	-	-
22 July 1976 *	-	-	-	32	-	67	93	-	-	-
21 September 1976 +	-	35	-	-	-	-	-	-	-	-
05 October 1976 +	-	-	18	23	-	89	-	-	-	-
28 March 1977 ^	32	53	-	-	27	76	85	-	-	-
26 April 1977 ^	45	64	-	-	20	81	96	-	-	-
27 May 1977 ^	24	36	-	-	26	45	110	-	-	-
24 June 1977 ^	21	38	-	-	27	62	64	24	42	100
18 July 1977 ^	7	24	-	-	19	74	37	-	-	-
16 August 1977 ^	17	28	-	-	36	70	54	-	-	-

* Samples collected using a Kejac-Brinkhurst core sampler

\+ Samples collected using a weighted Ekman dredge

^ Samples collected using an unweighted Ekman dredge

\- No sample collected

Table 28 Zinc Concentration in Sediment Samples ($mg \cdot kg^{-1}$) - 1976/1977

Date	Station									
	1	2	4	5	6	10	11	13	14	15
12 April 1976 *	76	74	83	75	-	89	83	-	-	-
25 May 1976 *	-	72	-	80	-	83	92	-	-	-
09 July 1976 +	-	-	83	80	-	92	-	-	-	-
22 July 1976 *	-	-	-	79	-	92	77	-	-	-
21 September 1976 +	-	83	-	-	-	-	-	-	-	-
05 October 1976 +	-	-	66	67	-	97	-	-	-	-
28 March 1977 ^	76	91	-	-	70	95	82	-	-	-
26 April 1977 ^	82	77	-	-	65	87	79	-	-	-
27 May 1977 ^	73	83	-	-	73	78	78	-	-	-
24 June 1977 ^	61	82	-	-	74	87	69	70	100	84
18 July 1977 ^	50	67	-	-	72	93	75	-	-	-
16 August 1977 ^	68	78	-	-	84	95	89	-	-	-

* Samples collected using a Kajac-Brinkhurst core sampler

\+ Samples collected using a weighted Ekman dredge

^ Samples collected using an unweighted Ekman dredge

\- No sample collected

Table 29 Summary of Water Chemistry Data for Samples from Surface Waters[1] - 1976/1977

Parameter	Station 1	2	3	4	5	10	11	12	13	14	15
	mean	mean	mean	mean	mean	mean	mean	mean	mean	mean	mean
	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD
	n	n	n	n	n	n	n	n	n	n	n
	min	min	min	min	min	min	min	min	min	min	min
	max	max	max	max	max	max	max	max	max	max	max
Ammonia	0.019	0.022	0.206	0.024	0.026	0.060	0.184	0.239	0.221	0.325	0.121
- as N ($mg \cdot l^{-1}$)	0.011	0.012	0.205	0.019	0.019	0.074	0.151	0.148	0.324	0.695	0.119
	27	28	29	29	29	28	29	22	21	21	20
	<.005	<.005	0.010	0.005	0.006	<.005	0.033	0.026	0.008	0.018	0.007
	0.050	0.051	0.850	0.086	0.091	0.310	0.720	0.590	1.400	3.300	0.420
Biochemical Oxygen	---	---	---	---	---	---	---	---	---	---	---
Demand ($mg \cdot l^{-1}$)	---	---	---	---	---	---	---	---	---	---	---
	29	29	29	29	28	28	29	21	20	21	19
	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	<10	<10	18	<10	<10	<10	<10	7	6	13	5
Chemical Oxygen	---	---	575	---	---	---	71	---	---	---	---
Demand ($mg \cdot l^{-1}$)	---	---	1142	---	---	---	43	---	---	---	---
	29	29	27	29	29	29	26	21	21	21	20
	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
	180	83	5800	53	150	210	180	430	170	170	120
Chloride ($mg \cdot l^{-1}$)	10.6	11.2	34.5	30.9	185.3	88.8	69.7	66.9	93.9	450.6	82.2
	26.9	20.8	37.[illegible]	66.3	506.5	252.5	55.7	43.3	186.9	1059.4	127.7
	29	29	29	29	29	29	29	22	21	22	20
	0.8	0.8	1.3	0.8	0.8	1.0	1.3	6.0	1.0	2.3	2.8
	140.0	80.0	150.0	260.0	2400.0	1200.0	210.0	150.0	710.0	4100.0	480.0
Colour	24.3	26.4	---	26.4	23.6	38.2	---	---	20.5	24.3	37.2
(APHA Units)[2]	13.9	13.8	---	13.4	14.0	28.5	---	---	11.6	12.9	29.1
	29	29	29	29	29	28	29	22	21	21	18
	5.0	5.0	10.0	5.0	5.0	5.0	25.0	40.0	5.0	5.0	5.0
	70.0	70.0	1100.0	70.0	70.0	130.0	700.0	600.0	50.0	55.0	110.0

Table 29 Summary of Water Chemistry Data for Samples from Surface Waters[1] - 1976/1977 Continued

Parameter	Station 1	2	3	4	5	10	11	12	13	14	15
	mean	mean	mean	mean	mean	mean	mean	mean	mean	mean	mean
	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD
	n	n	n	n	n	n	n	n	n	n	n
	min	min	min	min	min	min	min	min	min	min	min
	max	max	max	max	max	max	max	max	max	max	max
Dissolved Oxygen	10.7	10.6	---	10.8	10.6	10.0	7.0	4.5	10.1	9.6	9.4
($mg \cdot l^{-1}$)	1.1	1.1	---	1.1	1.0	1.2	2.2	1.8	1.4	1.6	1.3
	27	29	27	29	26	28	26	21	19	21	19
	8.9	8.4	<1.0	9.1	8.8	7.3	3.4	1.6	7.2	6.9	7.1
	13.1	13.0	12.9	12.8	12.8	12.5	13.2	8.5	12.6	12.8	11.8
Dissolved Oxygen	101	99	65	100	100	95	69	46	95	91	94
(% air saturation)	3	3	29	4	4	8	17	20	6	6	15
	26	28	24	28	25	27	25	20	18	21	18
	96	93	10	92	94	74	35	15	84	81	72
	106	105	101	108	105	104	97	89	107	105	125
Nitrate	0.09	0.10	0.43	0.11	0.53	0.28	0.22	0.59	0.10	0.11	0.42
- as N ($mg \cdot l^{-1}$)	0.07	0.12	1.16	0.04	1.47	0.95	0.36	1.40	0.06	0.07	1.05
	29	29	13	8	12	29	28	21	21	21	18
	0.02	0.01	0.10	0.10	0.10	0.02	<.01	<.01	0.02	<.01	<.01
	0.41	0.70	4.30	0.20	5.20	5.20	1.30	6.30	0.25	0.27	4.50
Nitrite	---	---	---	---	---	---	---	---	---	---	---
- as N ($mg \cdot l^{-1}$)	---	---	---	---	---	---	---	---	---	---	---
	29	29	29	29	29	29	29	21	21	22	20
	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005
	0.050	0.020	0.060	0.010	0.020	0.040	0.030	0.050	0.110	0.055	0.010
Non-filterable	79	66	298	65	101	58	60	72	32	27	---
Residue ($mg \cdot l^{-1}$)	53	49	324	41	119	35	55	62	21	42	---
	28	29	28	29	28	28	28	21	19	21	20
	<10	7	<10	12	<10	<10	<10	20	<10	9	<5
	200	200	1500	190	600	150	250	260	88	200	20

Table 29 Summary of Water Chemistry Data for Samples from Surface Waters[1] - 1976/1977 Continued

Parameter	Station 1	2	3	4	5	10	11	12	13	14	15
	mean	mean	mean	mean	mean	mean	mean	mean	mean	mean	mean
	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD
	n	n	n	n	n	n	n	n	n	n	n
	min	min	min	min	min	min	min	min	min	min	min
	max	max	max	max	max	max	max	max	max	max	max
pH	7.9	7.8	6.6	7.9	7.8	7.7	7.3	6.9	7.8	7.7	7.7
	0.1	0.2	0.9	0.1	0.1	0.3	0.3	0.4	0.1	0.1	0.3
	29	29	29	29	29	29	29	22	21	22	20
	7.6	7.0	4.6	7.6	7.3	6.5	6.6	6.2	7.6	7.3	7.3
	8.0	8.0	7.7	8.0	8.0	7.9	7.8	7.6	8.0	7.9	8.3
Salinity (ppt)	---	---	---	---	---	---	---	---	---	---	---
	---	---	---	---	---	---	---	---	---	---	---
	29	29	29	29	29	29	29	22	21	22	20
	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	1	<1	<1	<1	4	1	<1	<1	<1	1	<1
Sulphate ($mg \cdot l^{-1}$)	9.2	9.0	11.6	12.8	36.6	20.9	12.2	14.2	21.3	26.7	21.2
	4.3	3.8	6.0	10.8	80.5	38.1	5.9	7.5	28.8	27.7	21.4
	27	26	27	27	27	27	28	19	20	20	18
	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<1.0	<2.0	<2.0	<2.0
	27.0	20.0	29.0	50.0	400.0	190.0	27.0	33.0	110.0	91.0	83.0
Sulphide ($mg \cdot l^{-1}$)	---	---	---	---	---	---	---	---	---	---	---
	---	---	---	---	---	---	---	---	---	---	---
	26	26	26	27	27	27	27	20	19	19	18
	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05
	<.05	<.05	<.05	<.05	0.11	<.05	<.05	<.05	<.05	0.26	<.05
Temperature (°C)	11.3	11.5	13.0	11.4	11.5	12.4	13.8	12.7	12.6	12.5	14.9
	5.1	5.1	5.0	5.0	4.9	5.0	5.2	5.4	5.6	6.3	6.1
	28	28	28	28	28	28	28	20	20	22	19
	2.0	2.0	1.5	2.0	2.3	1.7	1.5	2.0	2.0	2.0	4.0
	21.0	21.0	22.0	20.0	20.0	21.0	21.0	22.0	22.0	23.0	25.0

Table 29 Summary of Water Chemistry Data for Samples from Surface Waters[1] - 1976/1977 Continued

Parameter	Station 1	2	3	4	5	10	11	12	13	14	15
	mean	mean	mean	mean	mean	mean	mean	mean	mean	mean	mean
	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD
	n	n	n	n	n	n	n	n	n	n	n
	min	min	min	min	min	min	min	min	min	min	min
	max	max	max	max	max	max	max	max	max	max	max
Total Organic Carbon	3.9	4.3	154.1	3.7	4.5	6.2	17.8	28.8	3.5	3.9	5.8
(mg·l^{-1})	2.4	2.7	274.6	2.4	2.7	5.2	20.1	23.8	1.5	1.2	2.9
	28	28	28	28	28	28	28	20	20	21	19
	2.0	2.0	3.0	1.0	1.0	2.0	3.0	4.0	2.0	2.0	2.0
	14.0	14.0	1300.0	14.0	15.0	26.0	99.0	99.0	7.0	7.0	13.0
Total Phosphorus	0.089	0.079	0.190	0.076	0.089	0.079	0.122	0.217	0.101	0.059	0.049
(mg·l^{-1})	0.074	0.061	0.180	0.048	0.068	0.051	0.069	0.167	0.109	0.042	0.018
	29	28	29	29	29	28	28	22	20	21	19
	0.012	<.010	0.021	0.022	0.017	<.010	<.010	0.044	<.010	<.010	0.020
	0.032	0.024	0.900	0.200	0.320	0.270	0.340	0.700	0.450	0.190	0.080
Turbidity (FTU)	31	29	249	31	32	31	46	72	19	18	10
	20	19	614	18	20	16	33	73	10	16	4
	29	29	29	29	29	29	29	22	21	22	20
	5	5	8	8	4	5	10	13	4	5	4
	84	77	3200	72	78	70	150	350	40	68	17

[1] Means and standard deviations are presented for water chemistry parameters except in cases where more than 10% of the values for a given parameter for a single station are below detection limits. In such cases range and number of observations (n) are reported only. Where 10% or less of the values are below detection limits, values preceded by < signs were not included for calculation of mean and standard deviation.

[2] Values preceded by > signs were treated in the same manner as described in Footnote 1 for values preceded by < signs.

Table 30 Summary of Water Chemistry Data for Samples from Bottom Waters[1] - 1976/1977

Parameter	Station 1	2	3	4	5	10	11	12	13	14	15
	mean	mean	mean	mean	mean	mean	mean	mean	mean	mean	mean
	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD
	n	n	n	n	n	n	n	n	n	n	n
	min	min	min	min	min	min	min	min	min	min	min
	max	max	max	max	max	max	max	max	max	max	max
Ammonia	0.020	0.020	---	0.022	0.026	0.151	0.215	---	0.158	0.512	0.170
- as N ($mg \cdot l^{-1}$)	0.011	0.012	---	0.016	0.019	0.515	0.176	---	0.132	1.083	0.123
	28	28	---	27	27	29	27	---	21	21	20
	0.007	0.006	---	<.005	<.005	0.007	0.023	---	0.005	0.014	0.017
	0.049	0.050	---	0.082	0.088	2.800	0.640	---	0.550	5.000	0.450
Biochemical Oxygen	---	---	---	---	---	---	---	---	---	---	---
Demand ($mg \cdot l^{-1}$)	---	---	---	---	---	---	---	---	---	---	---
	28	28	---	28	27	29	27	---	20	21	19
	<2	<2	---	<2	<2	<2	<2	---	<2	<2	<2
	<10	<10	---	<10	<10	<10	23	---	<5	<5	6
Chemical Oxygen	---	---	---	---	---	---	167	---	---	---	---
Demand ($mg \cdot l^{-1}$)	---	---	---	---	---	---	317	---	---	---	---
	28	28	---	28	28	29	25	---	21	22	20
	<20	<20	---	<20	<20	<20	<20	---	<20	<20	<20
	60	100	---	100	84	260	1400	---	300	340	130
Chloride ($mg \cdot l^{-1}$)	35.6	24.0	---	55.3	204.6	101.6	86.0	---	473.0	1336.9	183.2
	150.6	78.3	---	208.5	574.5	269.4	61.6	---	1265.3	1567.4	532.9
	28	28	---	28	28	29	27	---	21	22	20
	0.8	0.8	---	0.9	0.9	1.2	2.4	---	1.0	1.5	2.5
	800.0	410.0	---	1100.0	2700.0	1200.0	220.0	---	5700.0	4200.0	2400.0
Colour	24.8	24.8	---	24.6	25.0	37.2	---	---	21.8	29.1	30.5
(APHA Units)[2]	14.8	14.2	---	13.7	14.7	20.8	---	---	10.8	22.9	17.0
	28	28	---	28	28	27	27	---	20	22	19
	5.0	5.0	---	5.0	5.0	10.0	15.0	---	<5.0	5.0	5.0
	70.0	70.0	---	70.0	70.0	100.0	650.0	---	40.0	100.0	65.0

Table 30 Summary of Water Chemistry Data for Samples from Bottom Waters[1] - 1976/1977 Continued

Parameter	Station 1	2	3	4	5	10	11	12	13	14	15
Dissolved Oxygen ($mg \cdot l^{-1}$)	mean	10.7	10.3	---	10.6	10.5	9.6	7.2	---	10.0	---	7.8
	SD	1.1	1.8	---	1.1	1.0	1.0	2.4	---	1.2	---	1.7
	n	28	28	---	28	28	29	24	---	20	20	19
	min	8.6	3.2	---	8.6	8.2	7.7	<1.0	---	7.2	<1.0	4.4
	max	12.9	13.0	---	12.8	12.5	11.7	13.2	---	12.4	11.3	11.6
Dissolved Oxygen (% air saturation)	mean	101	97	---	100	99	92	68	---	94	---	73
	SD	3	13	---	4	4	8	19	---	6	---	10
	n	26	26	---	24	26	26	23	---	19	15	18
	min	94	33	---	95	93	74	27	---	81	9	51
	max	107	109	---	108	106	105	103	---	106	90	86
Nitrate - as N ($mg \cdot l^{-1}$)	mean	0.22	0.09	---	0.07	0.08	0.25	0.20	---	0.10	---	0.14
	SD	0.70	0.07	---	0.04	0.04	0.95	0.30	---	0.06	---	0.12
	n	28	28	---	28	28	29	26	---	21	22	18
	min	0.02	0.01	---	0.02	0.02	0.01	0.01	---	0.02	<.01	<.01
	max	3.80	0.41	---	0.13	0.17	5.20	1.30	---	0.20	2.90	0.52
Nitrite - as N ($mg \cdot l^{-1}$)	mean	---	---	---	---	---	---	---	---	---	---	---
	SD	---	---	---	---	---	---	---	---	---	---	---
	n	28	28	---	28	28	29	27	---	21	22	20
	min	<.005	<.005	---	<.005	<.005	<.005	<.005	---	<.005	<.005	<.005
	max	0.010	0.020	---	0.010	0.020	0.070	0.030	---	0.010	0.020	0.010
Non-filterable Residue ($mg \cdot l^{-1}$)	mean	89	104	---	75	82	209	210	---	46	94	49
	SD	68	88	---	54	62	318	495	---	38	143	51
	n	28	27	---	28	28	29	27	---	20	21	19
	min	13	17	---	13	13	20	10	---	<10	<10	<5
	max	320	360	---	260	250	1600	2600	---	180	620	210

Table 30 Summary of Water Chemistry Data for Samples from Bottom Waters[1] - 1976/1977 Continued

Parameter	Station 1	2	3	4	5	10	11	12	13	14	15
	mean	mean	mean	mean	mean	mean	mean	mean	mean	mean	mean
	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD
	n	n	n	n	n	n	n	n	n	n	n
	min	min	min	min	min	min	min	min	min	min	min
	max	max	max	max	max	max	max	max	max	max	max
pH	7.8	7.8	---	7.9	7.9	7.7	7.2	---	7.8	7.6	7.7
	0.1	0.2	---	0.1	0.1	0.3	0.3	---	0.2	0.3	0.3
	28	28	---	28	28	28	27	---	21	22	20
	7.7	7.2	---	7.7	7.7	6.6	6.6	---	7.4	7.1	7.3
	8.0	8.0	---	8.0	8.0	8.4	7.7	---	8.3	8.2	9.0
Salinity (ppt)	---	---	---	---	---	---	---	---	---	---	---
	---	---	---	---	---	---	---	---	---	---	---
	28	28	---	28	28	29	27	---	21	22	20
	<1	<1	---	<1	<1	<1	<1	---	<1	<1	<1
	2	<1	---	2	5	1	<1	---	10	6	<1
Sulphate ($mg \cdot l^{-1}$)	12.4	11.7	---	16.8	35.6	22.7	12.4	---	85.7	149.9	30.7
	19.5	13.4	---	35.9	85.8	39.9	6.4	---	193.8	203.9	43.5
	28	26	---	26	28	28	26	---	21	22	18
	2.7	<2.0	---	<2.0	4.0	<2.0	<2.0	---	4.0	5.9	<2.0
	110.0	75.0	---	190.0	430.0	190.0	27.0	---	870.0	550.0	170.0
Sulphide ($mg \cdot l^{-1}$)	---	---	---	---	---	---	---	---	---	---	---
	---	---	---	---	---	---	---	---	---	---	---
	26	26	---	26	26	27	25	---	19	20	18
	<.05	<.05	---	<.05	<.05	<.05	<.05	---	<.05	<.05	<.05
	<.05	<.05	---	<.05	<.05	<.05	0.24	---	<.05	0.28	<.05
Temperature (°C)	11.7	12.0	---	12.1	11.8	12.6	13.4	---	12.3	10.8	13.1
	4.9	5.1	---	4.9	4.8	4.9	5.1	---	5.3	5.7	6.0
	26	26	---	24	26	26	25	---	20	21	19
	2.0	2.0	---	2.0	2.0	2.0	1.5	---	2.0	3.0	3.5
	22.0	22.0	---	21.0	21.0	20.0	21.0	---	20.0	21.0	22.0

Table 30 Summary of Water Chemistry Data for Samples from Bottom Waters[1] - 1976/1977 Continued

Parameter	Station 1	2	3	4	5	10	11	12	13	14	15
Total Organic Carbon ($mg \cdot l^{-1}$)	mean	4.9	5.3	---	4.3	4.5	12.1	60.3	---	3.9	6.2	6.0
	SD	4.3	4.0	---	2.3	2.5	11.7	158.1	---	2.2	3.5	2.4
	n	27	27	---	26	27	28	26	---	20	21	19
	min	1.0	2.0	---	<1.0	1.0	2.0	2.0	---	2.0	3.0	2.0
	max	23.0	16.0	---	14.0	14.0	48.0	780.0	---	11.0	15.0	12.0
Total Phosphorus ($mg \cdot l^{-1}$)	mean	0.093	0.102	---	0.096	0.087	0.206	0.527	---	0.090	0.137	0.092
	SD	0.067	0.094	---	0.088	0.055	0.187	1.078	---	0.062	0.147	0.054
	n	28	28	---	28	28	28	26	---	21	21	20
	min	0.011	0.021	---	0.010	0.020	<.010	<.010	---	0.020	<.010	0.030
	max	0.300	0.450	---	0.420	0.230	0.810	4.400	---	0.250	0.650	0.260
Turbidity (FTU)	mean	34	37	---	33	34	78	129	---	22	50	28
	SD	17	21	---	19	20	85	293	---	19	78	24
	n	28	28	---	28	28	29	27	---	21	22	20
	min	4	5	---	5	4	6	12	---	4	2	5
	max	75	78	---	78	70	380	1500	---	93	330	100

[1] Means and standard deviations are presented for water chemistry parameters except in cases where more than 10% of the values for a given parameter for a single station are below detection limits. In such cases range and number of observations (n) are reported only. Where 10% or less of the values are below detection limits, values preceded by < signs were not included for calculation of mean and standard deviation.

[2] Values preceded by > signs were treated in the same manner as described in Footnote 1 for values preceded by < signs.

Table 31 Summary of Sediment Chemistry Data[1] - 1976/1977

Parameter	Station[2] 1	2	4	5	6	10	11	13	14	15
	mean	mean	mean	mean	mean	mean	mean	mean	mean	mean
	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD
	n	n	n	n	n	n	n	n	n	n
	min	min	min	min	min	min	min	min	min	min
	max	max	max	max	max	max	max	max	max	max
Cadmium (mg·kg^{-1})	---	---	---	---	---	---	---	---	---	---
	---	---	---	---	---	---	---	---	---	---
	7	9	3	5	6	11	9	1	1	1
	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chromium (mg·kg^{-1})	37	39	44	43	37	43	39	36	40	40
	4	4	2	3	2	4	5	0	0	0
	7	9	3	5	6	11	9	1	1	1
	32	35	42	38	35	38	31	36	40	40
	42	47	46	46	40	49	48	36	40	40
Copper (mg·kg^{-1})	32	37	35	37	35	47	39	33	50	43
	5	3	6	4	4	6	4	0	0	0
	7	9	3	5	6	11	9	1	1	1
	22	31	29	33	29	38	32	33	50	43
	37	43	40	43	41	55	44	33	50	43
Iron (mg·kg^{-1})	28429	30667	30667	28600	29333	39727	36889	30000	41000	40000
	2878	3202	1528	1673	2338	4429	3756	0	0	0
	7	9	3	5	6	11	9	1	1	1
	23000	26000	29000	27000	26000	32000	32000	30000	41000	40000
	32000	36000	32000	31000	32000	45000	42000	30000	41000	40000
Lead (mg·kg^{-1})	---	---	---	---	---	---	---	---	---	---
	---	---	---	---	---	---	---	---	---	---
	7	9	3	5	6	11	9	1	1	1
	<12	<12	<13	<13	<12	<12	<12	<12	18	<12
	<13	14	<13	<13	12	20	15	<12	18	<12

Table 31 Summary of Sediment Chemistry Data[1] - 1976/1977 Continued

Parameter	Station[2] 1	2	4	5	6	10	11	13	14	15
Mercury (mg·kg⁻¹)	mean	---	---	---	---	---	---	---	0.04	0.06	0.04
	SD	---	---	---	---	---	---	---	0	0	0
	n	7	9	3	5	6	11	7	1	1	1
	min	0.03	<.04	<.05	<.05	<.04	<.04	<.04	0.04	0.06	0.04
	max	0.08	0.06	<.05	0.07	0.30	0.08	0.06	0.04	0.06	0.04
Nickel (mg·kg⁻¹)	mean	47	52	52	55	48	58	51	50	58	55
	SD	6	4	2	2	2	8	5	0	0	0
	n	7	9	3	5	6	11	9	1	1	1
	min	37	46	51	52	44	51	44	50	58	55
	max	54	59	54	57	50	81	58	50	58	55
Total Phosphorus (mg·kg⁻¹)	mean	703	712	723	724	713	809	739	760	900	830
	SD	60	39	67	122	83	116	179	0	0	0
	n	7	9	3	5	6	11	9	1	1	1
	min	590	650	680	530	590	630	350	760	900	830
	max	790	750	800	850	790	940	930	760	900	830
Total Volatile Residue (mg·g⁻¹)	mean	25	40	25	26	26	69	69	24	42	100
	SD	12	16	9	4	6	28	28	0	0	0
	n	7	9	3	5	6	11	9	1	1	1
	min	7	21	18	23	19	28	36	24	42	100
	max	45	64	35	32	36	130	110	24	42	100
Zinc (mg·kg⁻¹)	mean	69	79	77	76	73	90	80	70	100	84
	SD	11	7	10	6	6	6	7	0	0	0
	n	7	9	3	5	6	11	9	1	1	1
	min	50	67	66	67	65	78	69	70	100	84
	max	82	91	83	80	84	97	92	70	100	84

[1] Means and standard deviations are presented for sediment chemistry parameters except in cases where more than 10% of the values for a given parameter for a single station are below detection limits. In such cases, range and number of observations (n) are reported only.

[2] Data for station 13, station 14 and station 15 were collected on only one occasion in each zone.